Genesee Farmer.

PRACTICAL SCIENTIFIC FARMERS OWN PAPER

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CULTIVATION OF INDIAN CORN.

Of the importance of Indian corn to the American farmer, nothing need be said. It is of more value even, in a national point of view, than wheat. No cereal cultivated in temperate latitudes affords per acre so much nutritious food for man and beast. In one sense, too, it is a "fallow crop," as it affords an opportunity of cleaning the land by the use of the horse-hoe while growing. On the rich, new lands of the West, we may apply to corn what has been well said of the turnip in Great Britain—"It is the sheet anchor of our agriculture." We fear, however, that it differs from the turnip in one very important respect. Its growth does not increase the amount of nitrogen or ammonia on the farm. It is a crop for rich land—land that is too rich, too low, and too loose for wheat. It will flourish on the best wheat land; but wheat will not succeed well on the best corn land. To grow corn on land that will produce good wheat, is not, as a general rule, to be commended.

We have said that corn will succeed on land too low for wheat. This is true; but corn requires a *dry* soil. It is a mistake to suppose that all high land is dry and all low land wet. Mr. Swan, near Geneva, N. Y., who has laid over fifty miles of drain-tiles on his farm, found that the highest parts of his farm required as much again draining as the lower portions. On low land, a few open ditches are often sufficient to carry off all the water; but on a springy hill-side, thorough underdraining is necessary.

Land for corn must be dry. We recollect walking through a magnificent field of corn on the thoroughly underdrained farm of our friend John Johnston. One of the underdrains was choked up, and *there the crop was a failure.* Corn delights in a loose, dry, warm soil. If it is surcharged with water, all the sunshine of our hottest summers can not make it warm, and all the manure that can be put on it will not make the corn yield a maximum crop. In passing along the various railroads, we have often been saddened to see thousands of acres of land planted to corn which, by a little underdraining, would have produced magnificent crops of this grandest of cereals, but which presented a miserable spectacle of yellow, sickly, stunted, half-starved plants, struggling for very life. We have ever been willing to apologize for the shortcomings of American farmers. We know the difficulties under which many of them labor. We *do* believe them to be, as a whole, "intelligent and enterprising." But these sickly corn fields are well calculated to create a very different impression. We have frequently to repeat the German proverb—"To know is not to be able." These farmers know how to raise good corn, but they are not always able to put in practice improved methods of cultivation. Many, however, might do better than they do. The country is in an embarrassed condition. Willing hands can not find labor. Good crops alone can save us from still greater poverty and suffering. One good harvest would set the wheels of trade and manufacturing industry in motion, and usher in a gladsome period of national prosperity. But it is vain to hope for good crops without good cultivation.

Farmers know how to raise good corn—know how to plant and cultivate. We can do little except to urge upon them, as a patriotic duty, the necessity of putting forth their best efforts the coming season. Our cities and villages are thronged with idle hands; set them to work. Do what you can toward draining the land. Plow it well, and prepare a good seed-bed. Mark out the land both ways, so as to plant in straight rows, and then use the cultivator freely. Do not suffer a weed to grow and rob the corn of food and moisture. Constant stirring of the soil decomposes its organic matter and renders available the food of plants lying latent in it; it enables it to attract ammonia and to condense moisture from the atmosphere, while it furnishes a loose and warm bed for the roots to grow in.

We have spent considerable time and money in experimenting with the various fertilizers for Indian corn. We know the importance of the subject. But we are satisfied that, for the country at large, *good plowing, proper preparation of the land, early planting, and good and thorough after-culture*, are of far greater importance. Throughout the vast corn-growing region of America, if we can remove stagnant water, prepare the land properly, plant in good season, and use the horse-hoe freely, the soil in the majority of cases is rich enough to produce fair and remunerative crops of corn. Still, unlike wheat and other cereals, it is impossible to make land too rich for corn; and it should be borne in mind that it costs no more to plant and cultivate a crop of corn that will yield sixty bushels per acre, than one that yields only thirty bushels. Of course, the most profitable land for corn is that which is naturally rich—too rich for wheat; but, in the New England States, very profitable crops are raised on poor soil by the aid of heavy manuring. Levi Bartlett says: "Of thirty-five crops of Indian corn offered for premium in Massachusetts, the average profit over all expenses exceeded $51 per acre." It is the opinion of many good farmers, that manure is more profitably applied to corn than to any other crop. An excellent farmer in this neighborhood thinks the cheapest way to raise corn is on clover sod. He lets the clover grow as long as possible in the spring, and then turns it under just before planting the corn. The clover furnishes manure, and he says the worms also feed on it and seldom injure the corn. A handful of plaster scattered on the hill before the first hoeing, is generally considered profitable in this section.

Sheep Poisoned by a Chemical Wash.—Last year, an English farmer dipped his sheep, after shearing, in a chemical solution, purchased of a chemist at Berwick. The sheep were turned into a large grass field. Heavy rains ensued, and washed the solution from the sheep on to the grass. This poisoned grass was eaten by the sheep, and also by an ox and a donkey. Both the latter and 700 of the former died. The farmer sued the chemist who sold the wash. A great deal of scientific evidence was adduced on both sides. The jury returned a verdict for plaintiff—damages £1,400, or $7,200.

Potatoes and Plaster.—When seed potatoes are cut, it is well to roll them in plaster. We know farmers who think this one of the best means of preventing the rot. If smeared with tar water and then dried with plaster—as seed corn is usually treated—so much the better.

CULTIVATION OF BUCKWHEAT.

It has been said that buckwheat occupies the same position among grains as the donkey does among animals—*useful, but not popular*. It will grow on the poorest of sandy soils; can be sown later than any other grain; and is one of the best crops for cleaning the land and for killing wire-worms and other injurious grubs. It has been extensively used for plowing in as a manure. But though it has proved beneficial for this purpose, it is not as good as many other crops that might be used—such as white lupin, spurry, red clover, &c.

In clearing off poor and hilly land, buckwheat is admirable for the first crop. We have seen excellent crops on such land in New England, where apparently no other crop would thrive. On such land, however, it is exceedingly grateful for manure. On the farm of Mr. Henry Sabin, of Lee, Mass., we saw a crop of buckwheat on a rough hill-side, where half the field had been top-dressed with 100 lbs. of Peruvian guano per acre; and on this half the crop was at least double what it was on the other half, where no guano was used. An experienced farmer says, "barn-yard manure, whether green or rotted, ashes, lime, and plaster, all seem to produce a wonderful effect when applied to this crop."

Buckwheat is often sown too early. When too early, the hot sun is apt to blast the flowers. The middle of June, in this section, is considered the best time to sow; though, in New England, good crops are often obtained when sown as late as the 4th of July. In sections where there is danger of frosty nights early in the fall, it must be sown early, as a slight frost often destroys the crop. We must endeavor to steer between the two dangers—blasting of the flowers in the summer, when sown early; and the destruction of the crop by frost in the fall, when sown late. It succeeds well sown on clover or grass sod. Formerly, it was considered best to break up the land in the spring, and cultivate and harrow it a few times before sowing; but latterly the practice is to pasture the land, and break up immediately before sowing. From three pecks to a bushel is the usual quantity of seed.

Of the uses of buckwheat, we need not speak. Everybody likes buckwheat cakes on a cold winter's morning. It is good food for poultry. Hogs thrive upon and are fond of it. When crushed, it is good feed for horses—more nutritious, it is said, than oats. It is good for milch cows, increasing the quantity and richness of the milk. Bees will travel considerable distance to find a field of buck-

wheat in flower, though it is said the honey is not as good as from clover, &c.

There are several varieties of buckwheat, but the one commonly cultivated (*Polygonum fagopyrum*) is probably the best. We annex a cut of the plant in flower.

BUCKWHEAT.

We throw out these hasty remarks this month in order to elicit the experience of our correspondents in time for the June number. Let us hear from you early.

SOWING OATS WITHOUT PLOWING.—Mr. S. H. McCONNELL, of Chester county, Pa., writes us that he has practiced sowing oats on corn ground without plowing, and finds the practice very advantageous. The oats can be sown earlier in the spring than if you have to wait till the ground is in proper condition to plow. Last year, when the oat crop in his section was nearly a total failure, he had fifty bushels per acre from oats sown early on unplowed land, and merely cultivated in and then rolled.

DOES IT PAY TO WASH SHEEP?

A WRITER in the last number of the *American Stock Journal* thinks the practice of washing sheep should be given up, for the following reasons:

First, It is of no conceivable advantage to the sheep; but, on the contrary, often proves exceedingly injurious. Severe colds and coughs almost always break out in the flock immediately after washing, and often lay the foundation of other and more serious disorders.

Second, Nothing is saved to the manufacturer by the washing; for washed and unwashed wools are alike subjected to the same cleansing process.

Third, If sheep are washed, they must necessarily carry their fleece well into hot weather, which is very uncomfortable and unnatural.

Fourth, Much wool is lost by being pulled out by bushes and briars in the pastures, and by the slivers of the fences. There is also considerable loss from the legs and bellies of the sucking ewes.

He thinks, "from several years' experience in shearing sheep early in an *unwashed* state," that it is conducive to their health. "The proper time for shearing," he says, "is before the sheep go to grass in the spring. They should be well sheltered for some ten or fifteen days after the wool is taken off; after which time no storm will injure sheep that are in good flesh. Every wool-grower should have comfortable sheds for his sheep during the winter; and with them there is no danger in shearing as early as the first of May in New England, and much earlier in the South and West."

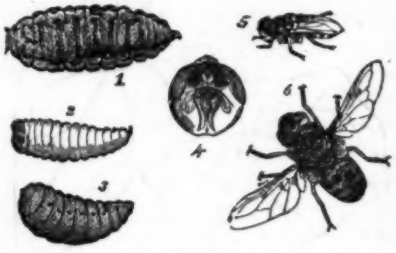
This question is worthy of consideration. That the health of sheep often suffers from careless washing, there can be no doubt. The sheep are sometimes driven three or four miles in a hot sun, and, while prostrated by heat, are plunged into cold water. Such a practice must be injurious. On the other hand, sheep can be washed without injury to their health. They should not be washed till the water is warm enough to bathe in comfortably. Then, if the sheep have not been hastily driven, they will not suffer by the process.

The principal reason for washing sheep is to remove impurities and reduce the wool to a more general standard. True, it has to be washed over again by the manufacturers; but if it was not washed at all on the backs of the sheep, there would be much less uniformity in regard to the impurities than when washed. Flocks that had been carelessly wintered would afford dirtier wool than those properly managed, and the good flock-masters would suffer for the carelessness of their

neighbors. The buyers would adopt a general standard, and they would make the farmers suffer for the increased risk incurred in buying dirty wool. Good sheep-breeders now complain, and justly, that there is not enough difference made by buyers in the price of fine and coarse wool; and it seems to us if sheep were not washed, the buyers would discriminate even less in their favor. The interests of wool-growers and wool-buyers are to some extent identical. Both can judge pretty accurately of the quality and value of a lot of wool; but it would be difficult to estimate the amount of impurities in unwashed wool, and the buyer would make the farmer pay for the increased risk. It is precisely the same in regard to cleaning wheat. A farmer who sells his wheat in a foul state *may*, for once, get more for the unwinnowed mass than for the smaller quantity of good wheat it contains; but in the end the farmers suffer from such carelessness. It seems to us such would be the case in regard to this question of washing sheep. An eminent woolen-manufacturer, of Lowell, Mass., says: "The cheating practice of selling wool unwashed is short-sighted, inasmuch as the 'clean thing' brings a price proportionate. We always fix the price per lb. by the quantity of scoured wool the fleeces will yield. In our purchases, we frequently make a difference of five cents per lb. in precisely similar qualities." This advance is amply sufficient to compensate for the time and labor required to wash the sheep. We hope some of our sheep-farmers will put the question to a test this season.

Sheep-washing is usually done about the last week in May, in the Northern and Western States and in Canada. The rule should be to wait till warm weather has set in; otherwise the sheep may suffer, and perhaps many perish from cold and exposure. The best place to wash sheep in is a running stream of pure water, with a clean bottom. The following method is familiar to many of our readers. The stream may be dammed up say three or four feet high. At the lower part of the dam place a couple of box troughs, open at the top, some eight or ten feet long, across the end of which place a piece of board with an upright stick nailed to it for a handle. The board slides in a groove, and is raised or lowered at pleasure, to allow the water to escape through the troughs. Boards are laid underneath the lower ends of the troughs for the washers to stand on. The sheep are confined in a yard close by, made of rails or hurdles. After the tags have been removed from the sheep with a pair of shears, they are handed, one at a time, to the washers, who hold them under the end of the trough, turning them about to receive the full benefit of the falling water. If the fall of water is considerable—say from two to six feet—a couple of turns and a good squeeze of the wool all round will be sufficient to remove all impurities.

After washing, the sheep should be turned into a clean pasture, and allowed to remain at least a week before shearing, to enable the wool to acquire enough yolk or oil to confer that softness and elasticity so much prized by the manufacturers, and which also adds to the weight of the fleece.



GRUBS IN THE HEADS OF SHEEP.

This disease, which is sometimes very troublesome, is caused by an insect (*Œstrus ovis*) which is very similar to the horse-bot or gad-fly (*Œstrus equus*). It deposits its eggs about August, in the nostrils of the sheep. By the warmth and moisture of the parts, they are almost immediately hatched, and the little maggots (fig. 2) crawl up the nose and find their way to the frontal cavities of the head. In the act of passing up the nose, they seem to give great annoyance to the sheep, which run about furiously, seeming almost mad. Here they remain, feeding on the mucus secreted by the nostrils, till the following summer, by which time the grubs are an inch long (fig. 1). At some time between the middle of April and the end of July, these larvæ attain their full growth, and seek to escape from their prison. They give great annoyance to the sheep at this time, causing them to continually stamp their feet and sneeze violently. After leaving the head of the sheep, they enter the ground, and become hard, brown pupa (fig. 3). From these the flies emerge in from forty to sixty days, and may be seen on the rails and fences in the neighborhood of a flock of sheep till September, and they may then be easily destroyed. The fly (fig. 5—magnified, fig. 6,) is smaller than the size of the larvæ would indicate, and is of a brownish tint, with five black rings on the back. The head of the fly (fig. 4) is large in size, and of a yellowish

hue. The wings almost cover the body, and are prettily striped and veined.

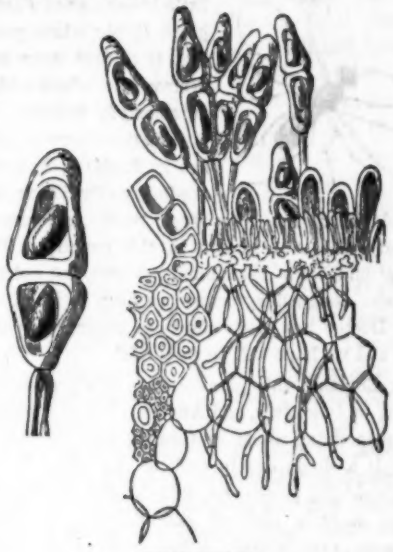
The popular theory that the grub causes death by boring through the walls of the brain, is absurd. The experiments of VALISNIERI go to show that the *Œstrus ovis never eats;* and this is the now received opinion.

Few sheep are exempt from the presence of these grubs, and they may, and probably do, add to the irritation of the animal when affected with catarrh. But it is the fly that produces the evil ascribed to this insect, by the annoyance it causes the sheep while endeavoring to form a lodgement for its eggs, in the warm weather of summer.

The best preventive of the attacks of this insect is to thoroughly tar the noses of the sheep in the early part of summer, and to mix a little tar with their salt occasionally. Tobacco smoke, when forced into the nostrils of the sheep, will cause the worms to drop out and thus perish. Or, take four ounces of Scotch snuff, and pour over it a quart of boiling water; stir it well; and when cold, take a syringe and inject about a tablespoonful up each nostril. The sheep should be placed on its back, with its head on the ground. Force the mixture as much as possible into the cavities of the head, keeping the point of the syringe up for this purpose, or the liquid will run into the throat. It will make the sheep very drunk, but no danger need be apprehended.

WHEAT MILDEW OR RUST.

THIS disease produced even greater injury to the wheat crop of portions of the United States and Canada, last year, than that terrible little insect the midge or weevil. We have no remedy to offer for either the midge or the mildew. One thing, however, is certain—the drier we can make the soil, and the earlier we can bring the crop to maturity, the less danger is there of injury. Underdraining, good summer-fallows, appropriate manuring, and sowing early varieties of wheat, will be found the best methods of mitigating the injurious effects of the mildew as well as of the midge. Land that abounds in organic matter, and which produces an excess of straw, is favorable to mildew. In the majority of seasons, it is poor policy to sow low, rich land, to wheat. We should plant such land with corn, or lay it down in meadow, and use the produce for making manure to be used on the dry, upland portions of the farm. Sow wheat only on the best land, cultivate and manure it as well as possible; and it will be found that a fewer number of acres, properly managed, will yield more wheat, or at all events more profit, than the too prevalent practice of sowing a large breadth, irrespective of its adaptation or culture.



WHEAT MILDEW.

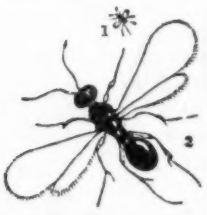
Wheat mildew or rust is due to the attack of a parasitic fungus, a cut of which, greatly magnified, we annex. There are few wheat crops, be the season what it may, in which mildew does not exist; but it is only when atmospheric circumstances are favorable that its growth is so rapid as to be very injurious. We can not control these climatic circumstances. All we can do is to avoid sowing on low land and in situations favorable to the spread of mildew.

The following plan is said to have been adopted with considerable advantage:

In the morning, while the dew is still on the ground, two men start to the field with a piece of stout twine or a small rope; each takes hold of one end, and, taking their stations in the adjoining furrows, they walk together across the field, drawing the string over the heads of the wheat, causing them to bend and spring up again, thus shaking off all moisture on the stalk. It is necessary to watch the weather after the wheat commences to blossom, and repeat the operation every time danger is apprehended from the appearance of a heavy dew or shower followed by a still atmosphere and strong sunshine, till the grain is out of the milk, when all danger of rust may be considered over.

WILL MARES PRODUCE COLTS AFTER MULES?—Several correspondents give us some facts which prove that they will.

THE INSECT WHICH DESTROYS THE WHEAT-MIDGE



There is an invaluable little insect, called *Platygaster tipulæ*, whose province is to feed upon and destroy the wheat-midge (*Cecidomyia tritici*). It is sometimes very abundant in England; but, according to Dr. Fitch, entomologist to the New York State Agricultural Society, it is not known in this country. The wheat-midge has been imported here, but not the parasite designed by nature to keep it in check. The Doctor has made efforts to import this parasite, and we hope will be successful.

In England, this parasite frequents grasses and wheat in June, July, and August, when the females are seen flying about or running over the ears to deposit a single egg in each of the midge larvæ. She is shining pitch color, with longish, ten-jointed horns, a little clubbed and flail-shaped; head globose; eyes lateral; trunk oval; body small, obovate, narrowed at the base, with a long curved oviduct concealed in the belly; four wings, transparent, without nervures, superior ones very large; legs strong, bright ochreous; thighs and shanks clubbed; feet long, slender, and five-jointed. Expands 1½ line. We annex a cut (1, natural size; 2, magnified.)

REARING CALVES.

We have received several letters from esteemed correspondents, on this subject, all agreeing that early calves are the most thrifty and the best to raise. We know a thrifty Scotch farmer, now residing in Canada, who raises the biggest and fattest calves for the butcher, without new milk. He gives them well boiled oatmeal porridge, with just enough skim milk stirred in to enable the calves to drink it.

An experienced farmer of Niagara county, N.Y., says: "Undoubtedly the best mode of raising calves would be to allow them to run with the cows; but this method is too expensive for general adoption." He recommends new milk for the first few days, after which they can have skim milk with a little meal stirred into it, gradually increasing the quantity of meal as the calf grows older, keeping the calf in good pasture. The meal may be of oats and barley or buckwheat, or all three, and should be kept up till winter.

Another correspondent, writing from Vernon, Iowa, recommends giving calves milk, and porridge made of middlings, boiled, with the addition of an egg to each mess, and plenty of good tender grass.

Another, from Jefferson county, N. Y., recommends that after two weeks old the calf should be fed with coagulated milk three times a day through the summer, and says the calves will be as large and fat as if allowed to run with the cow.

Another, from Pennsylvania, recommends, after three weeks old, sour milk, with bran or corn meal mixed with it; also keeping the calves in a dark stable during the hot days of summer.

ARE AMERICAN FARMERS INTELLIGENT?

Eds. Genesee Farmer:—Two weeks ago, I was on a tour through a part of Cayuga county, and will endeavor to tell you about matters and things so far as I saw there.

I passed a field there last September, (a plowed field,) on which men were spreading rotted manure made by cattle or sheep, or by both. I then thought the owner was preparing for a good wheat crop. When I passed this time, I saw he had only manured part of the field. On the part manured the wheat is strong, of fine color, and will undoubtedly make a fine crop; while on the unmanured part I could see none alive from the road; so it is either dead or nearly so. As a good deal of the manure was on the surface, I concluded it had been harrowed in with the seed. Now there is neither theory, science, nor agricultural chemistry in this, but plain, practical common sense; and as farmers pass that field daily, one would suppose men of intelligence would manure in the same manner. I found the wheat in that county looking pale and yellow, and altogether worse than it does in this county. Whether it is owing to it being later in that county, or lack of manure, or owing to the soil, I don't know; but there is some cause for ours looking so much better than theirs. Yet I saw many underdrains discharging into the ditches along the highways.

I was in a number of their cattle-yards, and in only one of them did I see anything like intelligence (enterprise is out of the question) in keeping their stock, only one yard that I saw being littered. In all the others the cattle were loaded with dung—at least all those parts that came in contact with it when they were compelled to lie down; and in not a single yard did I see a box or rack of any kind to put their fodder in. True, as the yards were become so filthy, some took the fodder outside the yards and laid it on the clean ground, which was a great improvement. In one yard, I noticed horses, cattle, and a few lean ewes, with young lambs, all eating at a half-rotted straw stack; the other part of the yard was a complete mass of dung, and not a handful of straw on it. I saw the ewes and lambs turned to one side of the yard, and a few ears of corn thrown down on the dung heap to them, which they went at greedily; but as they shelled it off the cob, much of it fell on the dung, and neither that nor the under side of the ear could they eat, as sheep will die of hunger rather than eat anything that has a bad smell.

Now I have no doubt that every one of these

farmers could make good boxes or racks to hold the fodder for their animals, and any man could nail two boards together to make a sheep trough, and there are many ways of threshing corn at little cost. Two men and a pair of horses will tread off 100 bushels of corn in much less than a day; a man with a flail will thresh over 30 bushels in a day; or two men with one of Mr. BURRALL's shellers will shell over 40 bushels in less than a day.

Now, if the farmers have the intelligence and enterprise you say they have, is it not strange to find such a state of things in a rich county like Cayuga? You ought to take a trip through that county, and induce them to do better: but don't tell them they are the best read and most intelligent and enterprising farmers on the globe; but tell them their faults, and try to induce them to improve.

I can not keep any kind of stock profitably, unless I have racks or boxes to put their fodder in, with mangers or troughs for meal and grain, and dry and clean beds to lie on. I would rather keep less stock, and have litter enough for them to lie upon, with hay, rather than let them lie in dirt. Many years ago, I was of the opinion that a certain amount of hay was worth five to six dollars per ton to tread into manure by either cattle or sheep, where the owner has not straw enough for that purpose; and I am of that opinion still.

Our wheat looks very well; I don't know that I ever saw it look any better at this season of the year: but I am a little afraid I shall have some loss by the white worm that destroyed some of the best wheat in this neighborhood last year, about the last of April and early in May. I have some fear of a part of mine, but it is too early to be sure of it.

Near Geneva, N. Y., Mar. 28, 1859. JOHN JOHNSTON.

REMARKS.—We thank our respected friend JOHNSTON for his interesting letter. We have seen many such farms and farmers as he describes. The picture is to the life. But it can not be that this is a fair representation of the American farmer. The immense number of corn-shellers manufactured and sold, is evidence that American farmers are not generally as deficient in intelligence and enterprise as the remarks of Mr. JOHNSTON on this point would indicate. The same is true in regard to all labor-saving implements. Any improved agricultural implement or machine meets with ready and extensive sale.

The farmer would doubtless have found it to his interest to have manured the whole of his land for wheat; but instead of censuring him for not doing so, we would rather commend him for manuring as much of it as he could. To obtain sufficient manure, is one of the grand difficulties American farmers have to contend with. It does not follow because they do not make as much manure as the farmers of England, that they are not intelligent. Meat is higher in England than here. The climate is better adapted for the production of turnips and other root crops, and the winters are so mild that they can be eaten on the land by sheep. England scours the world for cattle-foods and manures. Beans from the overflowing banks of the Nile, linseed and cotton-seed cakes from the fertile valley of the Mississippi, Carob beans (the "husks which the swine did eat") from sacred Palestine, dried flesh and bones from Buenos Ayres, nitrate of soda from Peru, and guano from the distant islands of the sea, all find their way to the quiet fields of "merrie old England." We once heard one of the best farmers of England, a thoroughly scientific man, and one whose opinion on this subject is eminently worthy of respect, declare that it was impossible for a farmer to make manure enough on his farm, unless he imported some cattle-food or artificial manures. If this is so in a country where half the land is occupied with turnips and clover, grown for the purpose of furnishing manure, how difficult must it be for the American farmer to make all the manure he requires.

Our friend thinks "men of intelligence" would see the advantage of harrowing in manure with the wheat. We think the practice is a good one. But the experiment alluded to by Mr. J. does not *prove* that such is the case. There is nothing to show that the manure would not have done as much good if it had been plowed in. Because a farmer passes that field daily, and yet does not adopt the practice, it is hardly fair to accuse him of a lack of intelligence—especially as the practice has been condemned (erroneously, as we believe,) by nearly all scientific writers and by the majority of practical farmers.

We have no wish to tell such farmers as our friend describes, that "they are the best read, the most intelligent and enterprising farmers on the globe." We are quite willing to "tell them their faults;" but we are not likely to have the opportunity. Such men do not read the *Genesee Farmer*. That there are many such farmers in the United States, we have no doubt; but this is no reason for the unmeasured abuse of the American farmers in which too many of our so-called scientific writers have so long indulged. We are not ignorant of their faults—of their comparative slovenliness and love of change—of their indisposition to expend money in underdraining and other *permanent* improvements. But these characteristic faults are incident to a new country, where rich lands are continually thrown into market, where railroads are developing the resources of new tracts of country, and where there are such abundant opportunities for speculation. We can hardly be surprised, however much we may deplore, if even intelligent men are generally willing to sell their farms and

try their fortune in some of these new fields of enterprise. This ever-present thought of "selling out" greatly retards the introduction of permanent improvements. But who shall say that the effect on the whole has not been beneficial—that the country at large is not the richer for it? The standard of agriculture in the older-settled States would have been far higher, had it not been for the new, rich lands at the West. That in many cases it would have been far better to have developed the resources of the soil at home, rather than to seek to acquire sudden wealth in the new States, there can be no doubt. Much personal misery and great national loss have been the result of this reckless speculation. But these are merely the concomitant evils of that spirit of enterprise without which the interior of this vast continent would still have been an unbroken forest.

HOW SHALL WE IMPROVE OUR HIGHWAYS?

We make the following extracts from several communications received on this important subject. They will be read with interest.

The modes of expending money in repairing roads are different in different States. In Pennsylvania they appoint or elect a supervisor for each township, whose duty it is to keep the roads in good repair, and bring in his bill for the same, which, without regard to amount, must be paid. This mode is, in my opinion, objectionable, from the fact that it is in the power of one man to expend any amount of money, without control.—Again, with one supervisor in each township, to work the roads in a reasonable time, he must employ more hands than he can work to advantage. It is a fact, I think, that twelve men will do more work than forty or fifty, according to the number employed.

In New Jersey the roads are worked differently. At the annual town meeting, held in April, it is left to a vote of the voters of the township to say how much money shall be raised by tax for roads. There is an amount fixed upon for that purpose. The township is laid off in small districts, and each district has an overseer, elected by the voters of the district. The town committee apportions the amount of money voted for roads to the several districts, according to length, condition, &c. If, in the judgment of the overseer, the amount apportioned to his district will not make the roads in a lawful condition, he calls one or more of the town committee, who order him to do the work necessary to make the roads passable. At the meeting of the committee in the fall, (in October, I think,) the different overseers hand in their bills, and receive an order on the township collector for the amount.

This mode I think is also objectionable. The roads are often neglected for want of means to work them. Some overseers, rather than call the committee, will leave the roads unfinished. Others, after the call of the committee, will run their bills to an unreasonable length, for the sake of a "job." Again, by this arrangement, the hands employed (generally in May) must wait until December for their wages.

Your mode of repairing roads, or rather your mode of expending money for the repair of roads in New York, I am unacquainted with. I would submit it to your consideration, whether it would not be better and more economical to adopt a plan something like this: When the people meet to transact their township business, elect their officers, &c., let them ascertain how many miles of road they have in the township, and then put out the roads of the township by contract to the lowest bidder, either by the mile or for the repairs of all the roads in the township, the contractor giving bonds and security for the faithful performance of the contract, to be subject to the order and dictation of the town committee. Could we not by this mode keep our roads in better repair, with less expense, than we do under our present arrangement; and the hands employed would then get their pay as they do their work. W. H. SNYDER.

Rosemont, New Jersey.

The law places the supervision of the highways in each town under one or three commissioners, as the towns shall elect, and who are to divide the highways into convenient road districts, which districts are placed under the charge of overseers, one for each district. The commissioners levy an annual labor tax on the taxable inhabitants of each town, in addition to a poll tax of at least one day on each white male citizen of 21 years of age. This tax amounts to about half a day to one hundred dollars of valuation of property, as assessed by the town assessors. A warrant is made by the commissioners to the overseers, directing them to cause at least one-half of the labor assessed upon their districts to be worked in June, and the balance when most needed by the highways, and to make returns of what they have done in the premises, &c.

Now let us take a look at our highways, and see how this system is carried out.

District No. 1, in a town, for instance, will turn out, rain or shine, and expend their whole labor at once in throwing up a narrow windrow of surface soil to the height of three or four feet from the original level, leaving deep ditches on each side, while the windrow is so narrow and the sides so steep that it is almost impossible for meeting teams to pass each other without upsetting. Then, again, there is no chance for making two or more wagon tracks; but all must travel in the same track, making, in wet weather, deep ruts in the unsuitable earth used for the so-called road. The excuse for making this sort of road is, "to shed off the water," when in fact it has exactly the contrary effect, retaining it in the deep ruts.

The overseer of District No. 2 sees the error, as he calls it, makes his road wider, and, in order to turn off the water, makes, in every few rods, a diagonal "mound," two or three feet high, across the road, with a ditch on the upper hill side. This plan is very vexatious to fast young men in gloves, moustache, and trotting buggies, as well as to heavily loaded teams, giving the wagon a very disagreeable double twist as it passes into and out of the ditch and over the "mound;" but it is better, on the whole, than the plan of No. 1.

No. 3 concludes, on the whole, that the road in his district will answer as it is; and as he is in a hurry with his own work, and does not travel the roads much, he "lets it slide," and does nothing.

Again, in village districts, there may be assessed two or three hundred days' work on a road say a mile in length; and, in many back districts, of two or more miles in length, there will be perhaps from ten to forty days assessed. Many districts put off their road work until after they have got through with their summer's farming, and then, in October or November, they will go to work, plowing, scraping, and "muxing up" the surface soil, making a perfect mud-hole until Jack Frost closes it; and in the spring it is mud, mud, until old Sol dries it up. On return day, some districts make full returns, others partial returns, and others no returns at all; and so on to the end of the chapter.

Now this is all wrong. The law is far behind the times. The manner of assessing the tax is wrong; the manner of working it out is wrong; and it is all wrong. I would recommend amending the highway laws so as to do away the district system entirely, and put the supervision of the roads under *one* commissioner only, who should enter into bonds to his town for the faithful performance of his duty, and who should have a compensation adequate to the labor which he performs for the public. Instead of a labor tax, I would have a money tax, to be paid to the commissioner, who should expend it when and where most needed. A money tax of twenty-five or thirty cents on a hundred dollars valuation, properly expended, would do more good in making and repairing highways, than all the labor now assessed. The commissioner should have discretionary power to let those who have considerable taxes to pay, pay it in cash or do a specific job on the road at a fair price for their labor.

It is perfect folly to undertake to make a road of surface soil on clayey or mucky land. On such land, a permanent road can be made sooner and cheaper by carting gravel two miles, first covering the bed of the road six inches or a foot deep with small stones, and then covering all with gravel or sand.

The law requires that roads should be laid out three rods wide. They are so laid out and recorded, though but a very small proportion of them are *open* to that width; in many places but two rods; and I have seen them but *one* rod from corner to corner of the crooked rail fence. Such narrow roads are generally obstructed in the winter by snow-drifts, when travelers are obliged to take to the fields, throwing down fences, &c., to the great vexation of farmers, who might remedy the evil, in a great measure, by opening the road to its proper width through their premises.

North Almond, N. Y. WM. HOWE.

THERE is but one true plan in making a good road through arable land; and that is, to ridge it well up in the middle, and allow no water to remain on either side. In general, this may be effected with the plow, the harrow, and a road machine or scoop. Some are of the opinion that after the work has progressed so far, it should remain one winter, to allow it to settle and become more compact. In that case, it will most likely be barely passable in the spring, should the frost get in very deep; but it will afterwards be in the right state to receive a good coat of gravel, and that should be of pure grit, and if rather coarse, will wear all the better. After that operation has been properly performed, you are then in a fair way to have a good road, and a little attention will keep it so for a number of years. In a hilly country, cut down the hills and raise up the valleys, as the nearer level a road is, so that the water will run, the better. Where ruts are allowed to form and remain open, of coarse the water will settle; but where a road is well attended to, there will be no ruts at all, or at least only temporarily.

The road scraper is very serviceable, and should be used much more frequently than is the case on some of our roads. X.

WHEN my father moved to this place from the east, twenty-seven years ago, this was all a howling wilderness, with here and there a log house. The roads were all in a state of nature, and lay through low, timbered land. The soil was clay, sand, and black loam. There was not a worse road in the town than ours when it was new. The first thing we did was to chop it out four rods wide. We then commenced at one end of the district, and grubbed out the stumps on as long a piece as we could finish that season, plowed it up about two and a half rods wide, and then scraped it up until we got the ditches about eighteen inches or two feet deep. We then let the water all out of the ditches, so that none would stand by the side of the road, and levelled off the road smooth. The next year we would take another piece, and do it up in the same way, until we got it all finished. We not only worked out our road tax, but we gave a good deal beside. We then commenced back and scraped it over again where it needed it, and drew sand upon the clay. Finally, not knowing what else to do, we shoveled out some of the ditches two and a half feet deep, to drain our farms.—We now have the best road of any district in this town; and, taking everything into consideration, I don't think it can be beaten in this State.

Ray, Macomb Co., Mich. C. INMAN.

IN hot weather, all are ready to admit that roads might be greatly improved by being shaded. How beautiful to travel along the highway improved by a row of trees planted along each side, thus forming a narrow lane, along which a gentle current of air is almost constantly passing. Their many leaves are also in constant motion, like so many fans of nature, cooling the weary traveler on his way.

The above facts being admitted, the question will naturally arise, with what kind of trees shall our roads be planted? I would answer, with some kind that would be both ornamental and useful. In old settlements, where the forests are nearly all cut down, the maple, the walnut, the locust, and many others, would be both ornamental and useful. The locust is very useful, being easily cultivated, of rapid growth, and more durable than any other timber for fence posts. But in newer settlements, where the forest is yet in its beauty, fruit trees, planted along the road through the farm, would be more ornamental and useful—such as the apple, the cherry, the plum, the mulberry, and many others. What could be more delightful than to

see long lanes lined on each side with beautiful trees in bloom? The wild or crab apple also yields a most delicious perfume, for many rods around, when it is in bloom. And in the latter part of the season, how beautiful to see the trees bending under their heavy loads of different hues, delicious both to the eyes and palate. By thus improving our highways, we might almost dispense with the orchard. WM. RENO.

New Castle, Lawrence Co., Pa.

NOTES FOR THE MONTH.—BY S. W.

DISTILLERY-SLOP-FATTED BEEF AND MUTTON.—The best meat sold here is by an English butcher. It is fatted on good hay, a very few roots, and still-slop. He gets 12½ cents per lb. for the best cuts of beef, and 10 cents for mutton; while the half-fatted beef and lean mutton he buys from farmers he sells at two cents a pound less. Yet we are gravely told, by a committee of the New York Academy of Medicine, if the *Journal of Commerce* reports truly, that the "beef of swill-fed cows has its cellular tissue filled with fluid to a great extent, instead of solid fat." And what is still more astounding, and a poser to analytical chemistry, is, that the milk of still-swill-fed cows is "entirely wanting in the phosphoric ingredient that is found in pure milk;" which necessarily implies either that cereal grain, so rich in phosphates, contains less phosphate of lime than grass, or that the phosphoric ingredient had been taken off by distillation, which is a physical impossibility.

In the report, last year, on the character of the New York swill milk, it was contended that the cows were kept in a state of semi-inebriation by the waste alcohol that was run off with the slop; but now the reverse is complained of by this learned committee, to wit: that "the swill, from the period it is drawn from the alembic, is highly charged with acetic acid." Last year it was contended that the milk of swill-fed cows would not coagulate as soon by several hours as other milk. Now this committee says that "it undergoes remarkable transformations in less than four hours." Interlarded as the report is with professional verbiage, assertions like these only show how well this committee has been hoaxed; for it appears that the report is *ex parte*—made up on hearsay evidence, furnished drawings, and bugbear reports, and without any made analyses on the part of the committee, or other exact knowledge of their own in the premises. But while a nursery story only frightens children, this queerly elaborated indictment of swill milk may frighten the mothers of children; yet the excellent, savory, well-fatted meat, and good milk and butter, that is daily made in the country from distillery-swill-fed animals, scatters to the four winds the pen-and-ink analyses and *ex parte* report of this committee of the New York Academy of Medicine.

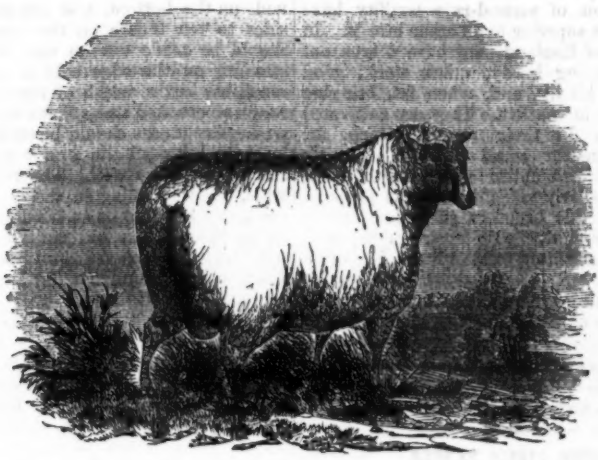
THE VALUE OF LEACHED ASHES.—A western agricultural paper says "*thoroughly leached* ashes contain *no potash*." I have noticed that ashes can not be thoroughly leached of their potash, even by the application of hot water, as enough of alkaline salts has remained to affect the skin of my fingers. The presence of acids, or the action of the roots of growing plants, can alone extract all the potash from wood ashes. But as leached ashes contain, beside potash, all the mineral elements of plants, they can not fail to be an excellent manure for all light and thoroughly exhausted soils. One of the best farms I ever saw in Rhode Island was brought up, from an exhausted barren sand that supported no vegetation, to clover bearing, by the aid of leached ashes alone. Milch cows and swamp muck, afterward, with the aid of clover, induced great fertility.

THE VALUE OF MANURE FROM WELL-FED ANIMALS.—Here is a farmer who had two acres of sandy land, near this village, so thoroughly exhausted that it would hardly support grass. He gave our stall-feeding butcher the use of it one season, for the benefit of the manure he was to put on it. He put on 40 loads of stall manure, the basis of which was distilled grain, and got a large crop of potatoes, leaving the soil so full of organic matter that its color was changed from drab to a chocolate color in many places. These forty loads evidently improved this field more than twice the quantity of the ordinary farm-yard manure. JOHN JOHNSTON said he would not have bought linseed meal this winter, at the present high price, but for the extra value it gave to his manure. He also buys lean sheep and cattle to fat on his large crop of hay and corn, counting on the extra value of the manure as no small part of the compensation. At this time he is selling sheep at eight to ten dollars each, that cost him but two dollars last fall. Yet, strange as it may seem, an Ohio farmer correspondent of the last *Ohio Cultivator* attempts to show his brother farmers the profits on pork-growing, without adding a single penny to the credit side of the account for the manure made. So much for the Western obliviousness of organic manures; while in Rhode Island it is said that every breeding sow, if supplied with common materials, will half pay her board in the manure she makes.

A LITTLE CORN TO FARM STOCK.—A farmer who has had much experience in wintering stock, says, if you feed corn in the ear to cattle during the day, they will not digest it well; but a few nubbins fed at night, after the animal has eaten hay and is ready to lie down, will all be re-chewed with the cud and thoroughly digested, adding profitably to the keeping of the animal.

A FEW WORDS ON HAY.—Here is a practical farmer who says he wants timothy to grow until it is so ripe that it may be cut and hauled into the mow the same day. *Per contra*, here is a cow who will not eat such hay at all, if she can get that which was cut before the seed had filled, and was well cured by sweating in cock. I take it that it is the imperfect curing of early-cut hay that brings it into disrepute. Some farmers allow it to burn in the sun; and because it does not cure easily they let it lie exposed to the night dew, if not to light showers. Such hay loses all its sweetness. I have seen hay well cured in cock in bad weather. When the wind blew, and the air was partially dry, the cocks were opened; but always closed at night, or before a shower. There can be no doubt that hay cut before the seed has filled is twice as nutritious, if well cured, as that which needs no curing after the seed is ripe. S. W.

Waterloo, N. Y., March, 1859.



SOUTH-DOWN BUCK "THORNDALE." BRED BY SAMUEL THORNE, WASHINGTON HOLLOW, N. Y.

SHEEP—THEIR EARLY INTRODUCTION.

The first sheep introduced into America, of which we have any record, were brought from England to Jamestown, Virginia, in 1609. In 1648, the number increased to 3,000. In the early part of the last century, they throve well and bore good fleeces; but wool-raising was suffered to decline, owing to the losses sustained by tearing off the wool by bushes and briars.

Sheep were introduced into the plantations of Massachusetts Bay prior to 1633, as mention is made of keeping them on the islands in the harbor, to protect them from the Indians and wolves. They were introduced into Nantucket in 1660, at the time of the first settlement by the proprietors.

The first sheep imported into this State, according to Van Onderdonck, who wrote about the year 1650, were brought from Holland in 1625; others were brought from Zealand and Texel to Rensselaerwick in 1630. But little progress was made on the Hudson for many years, in consequence of the ravages committed by dogs and wolves. In 1643, there were not over sixteen sheep in the colony. In 1650, they were so scarce that an animal bearing wool was worth from eight to ten dollars.

The first Spanish sheep introduced into this country, of which we have any account, were sent by M. Delessert, a banker in Paris, and arrived at Philadelphia, in the ship Benjamin Franklin, on the 16th of July, 1801. Owing to a long and boisterous passage, out of the four bucks shipped only one lived to reach this country.

The introduction of Merino sheep into the United States formed an era from which we may date much of our thrift and prosperity. Chancellor Livingston, of this State, foresaw at an early period the immense advantages that would result to our country from their introduction, and sent from Spain, in 1802, two couples of select Spanish Merino sheep; and to him belongs the honor of one of the earliest importations. Subsequently, by himself, Colonel Humfrey, Gen. Derby, Consul Jarvis, and others, the country was supplied with Merino sheep. It was not, however, until some seven or eight years after their first introduction, that their importance began to be appreciated. A *mania* for sheep then commenced, scarcely excelled by the *Morus multicaulis* speculation at a later period. As much as $1,000, and in some instances $1,500, was paid for a single buck!

In 1810 or '12, Bakewell sheep were first introduced on Long Island, by Thomas Lax, an Englishman, and by the late Christopher Dunn, of Albany. In 1814, Mr. Dunn obtained a buck of the same breed, which was captured by one of our privateers from an English vessel on her way to Canada. Since the war of 1812, many importations, by different individuals, have taken place in all parts of the country.

Among the early importers of South-Down sheep were the late John H. Powell, of Philadelphia; Francis Rotch, Otsego county, N. Y.; Sidat Hawes, who emigrated to this country in 1832, and settled on "Three Hills Farm," near Albany; Messrs. Brentnal and Wait, Orange county, N. Y.: and more recently, L. G. Morris, Fordham, N. Y.; J. C. Taylor, New Jersey; and Samuel Thorne, Washington Hollow, Dutchess county, N. Y., who, with commendable liberality, without regard to expense, has imported some of the choicest specimens of this valuable breed that could be procured in England.

The Downs imported by Mr. Hawes in 1832, came in possession of the writer, with the farm, in 1835. We bred from them several years, and found them a valuable breed. Their mutton is of the choicest kind, and always commands the highest price, although from the properties of the sheep it can be produced at the least cost. By their activity and vigor, both of muscle and constitution, they are fitted to encounter any difficulty, as well as to endure the extremes of heat and cold.

In Great Britain, the South-Downs stand at the head of the short-wooled sheep. They were once confined to a small district in Sussex, but for the

last forty or fifty years have been rising in favor, and on hilly lands of second-rate fertility have proved themselves superior to all other breeds. In several counties of England they have driven out the old kinds; being hardy, quick stock, good nurses, fattening kindly, and, when fat, bringing the highest price in market. They are cultivated more particularly for their mutton, which, for quality, takes precedence of all others. Their early maturity and extreme aptitude to take on flesh, render them peculiarly valuable for this purpose. The ewes are prolific breeders and good nurses. They are quiet and docile in their habits, and, though industrious feeders, exhibit little disposition to rove.

A sheep possessing such qualities must of course be exceedingly valuable in districts in the vicinity of markets. Accordingly, they have been introduced into every part of the British dominions, and imported into this and other countries.

Springside, N. Y., April, 1850. C. N. BEMENT.

BUILDING STONE FENCES.

Messrs. Editors:—There are several of your prize essays in the January number which I believe unsound in theory, and know they will not stand the test of practice; and, with your permission, will endeavor to point out some of the most prominent errors in each, as time will permit, commencing with M. T., of Washington county, on building stone walls, who begins by saying, "To erect a good stone fence, it is necessary, except on ground not affected by frost, to dig a trench twelve to eighteen inches deep, and as wide as the base of the wall is desired to be;—for a half wall, two feet; and for a four and a half or five foot wall, two and a half feet wide. This trench should be filled with small stones pounded down, and made level with the ground."

I would ask, of what possible advantage is this trench twelve or eighteen inches deep, filled with stones? It makes a good drain, and water will most certainly find its way into the trench sooner or later; or else ditching is of but little use. The banking up on both sides, with nothing but the stone wall above, will not prevent the water from freezing in the trench, or the earth in the bottom. In the same proportion as it freezes it will heave, and affect the wall more or less.

Again; where there is much descent, the water running in the trench will soon commence washing away the earth in the bottom, which will cause the wall to settle; and it is by no means certain that it will settle level.

Stones are not slippery things, and never fall down if laid on a foundation that never moves, which is the all-important question in making walls. I have made fifteen or sixteen miles of wall on a soil that is as subject to heave as any soil in the State, and I have never had the first stone fall when I made a foundation by back-furrowing a ridge twelve inches high and five feet wide. This can be done by back-furrowing several times. Give full opportunity to settle, before placing the wall on it. This makes a saving of one foot, if laid on the surface; and two and a half, if commenced in a trench eighteen inches deep, which is an important saving. The wall then need not be more than four feet high and twenty-two inches wide on the bottom, and tapered equally on both sides to ten inches on the top, when a coping should be made on the top, by placing a stone standing on the edge that is sufficiently long to reach the entire width of the wall, and may be a rough or crooked stone that would not work in the wall. Great care should be taken to keep the wall level, and lay all the stones crosswise that will reach across the wall. The ridge being five feet wide, the wall being in the center, there will be one and a half feet on each side to bank up as steep as possible, which will make a high, sharp bank, which will require sufficient earth to make a deep ditch on both sides, making large sluice-ways for the water to run through, to prevent at all times any water from standing in the ditch to soak under the wall. The foundation is secured, beyond a contingency, from water, and no soil can heave without it. In many instances where a fence stood, I could not make the bank for the wall to stand on without moving, therefore made the wall on the surface, and then made a good bank on each side, which in all cases has not saved it from falling, occasioned by the soakage of water under the wall. The all-important thing is to keep the earth dry on which the wall stands.

Hornby, N. Y. A. B. DICKINSON.

Stop the Sucker.—Good cows, many times, are in the habit of sucking themselves, and many ways are tried in vain to prevent the mischief; and young calves are always in the habit of sucking each other's ears. This may be prevented by a composition of spirits of turpentine, musk, and asafœtida. Heat them all well together, and, when cool, give the cow a large spoonful on the roots of the tongue; then rub a little on the cow's bag, about the roots of the teats. If the cow still continues in the habit, cut off the fingers of an old glove, slip these over the teats, and saturate them well. They may be taken off when you want to milk. Always give your patient a good taste of the medicine before you rub it on. Calves may be treated in the same manner. If musk is not convenient, the composition may be made of spirits of turpentine and asafœtida.—A. L. Smith.

Pasturing Meadow Lands.—Many farmers are in the habit of pasturing their meadows in the fall, and even till early in the spring, especially in open weather, when the ground is frozen. Any farmer who has a correct knowledge of the main principles of agriculture, must admit that this course should not be practiced. On ordinary farms, meadows will not produce more "waste feed" than they require to protect the plants from the frost and drouth the following winter and spring. If the first suckers are cut off at the ground by stock, vegetation will be deferred till very late in the spring, and your crops will be diminished year after year, till your meadows are worthless.—G. B. Miller, *Jeffersonville, Ind.*

Black Leg in Cattle.—A correspondent of the *London Mark Lane Express*, as the result of long experience, recommends for this disease, bleeding to faintness, and then a drench of four ounces of Epsom salts.

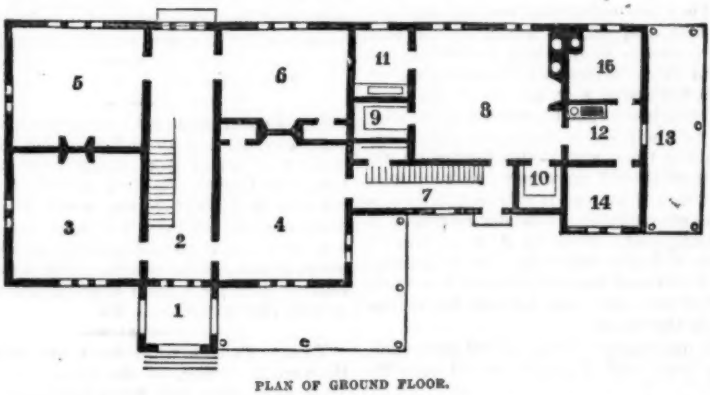
DESIGN FOR A FARM-HOUSE OF THE RURAL GOTHIC STYLE.

FARM-HOUSE IN THE RURAL GOTHIC STYLE.

THE accompanying drawings are a design and plans for a farm-house of the rural gothic style, with conveniences for an estate of considerable size. The designs and the following description were furnished for the *New England Farmer* by GEO. E. HARNEY, Esq., Architect, Lynn, Mass.

"The accommodation is as follows: The first floor contains—No. 1, a porch, open on three sides, and communicating on the fourth with the hall, No. 2, 8 feet wide, and extending through the house, with a door at each end. This hall contains stairs to the chambers, and opens into the principal rooms of the house. No. 3, parlor 15 ft. square; No. 4, living-room, 15 by 16; No. 5, bed-room, 13 by 15; No. 6, bed-room, 10 by 15. This room, if desired, may be used for a library. No. 7 is a back entry containing the servants' stairs to chamber and cellar, and opening into the kitchen, No. 8, 18 by 18. Connecting with the kitchen are two large china-closets, Nos. 9 and 10, and a store-room, No. 11. No. 12 is a pantry, 7 by 8, opening upon the small veranda, No. 13. No. 14 is a dairy or milk-room, 8 ft. square; and No. 15 is a wash-room or scullery of the same size.

"The second story contains seven good-sized bed-rooms, with their necessary closets. Those in the L being entirely distinct from the main body, and reached by a different flight of stairs, may be used for servants and hired men. The attics, if not



PLAN OF GROUND FLOOR.

needed at present, may be left unfinished, and used for drying purposes. The cellar, occupying the whole of the space under the house, should be divided into several apartments corresponding to those on the first floor, to be used for storage, fuel, &c.

"CONSTRUCTION.—Although we greatly prefer stone or brick for the construction of such buildings, yet as there seems to be such a prejudice in favor of wood, (especially in New England,) we have designed the above to be built of that material.

For outside finish, we should prefer plank—stout 1¼-inch plank—put on in the vertical manner, and the joints covered with 2½-inch battens. The ornamental portions, window-hoods, verge-boards, &c., should also be made from 1¼-inch plank.

"We have designed the windows to be filled with lozenge or diamond panes; but these, although more in accordance with the style of the house, may be omitted, and rectangular squares inserted in their place.

"Cost.—Built in the above manner, the interior finish of a plain, inexpensive character, this house would cost, in the neighborhood of Boston, from $3,800 to $4,000."

MANAGEMENT OF CALVES, &C.

The *Genesee Farmer* has come to hand, now as ever a welcome visitor, containing much valuable information, which is producing the desired effect. The people are beginning to appreciate such publications, and when they have once taken the *Genesee Farmer*, do not like to be without it. In fact, some of us need two, in order to keep peace; for it is no sooner in the house than the ladies want it, and we can hardly get hold of it; neither can we endure waiting.

The article on the management of the manure heap, published in the February number, is excellent, as are also many others, such as "Bringing Seed from the South," "No cattle no manure," &c. But if I should attempt to notice all the interesting articles in any one number, I should only waste my time and your space.

The letter from John Johnston, in the March number, is very interesting. I hope he will entertain us with more such experiments. But there is an article on rearing calves, from the pen of E. Maynard, I think little of, and am only astonished that some of your able correspondents have not written a reply for the April number. I shall take up the paragraphs as they stand, and give my opinion of them, and let it go for what it is worth.

Taking calves from the cow at two days old, is not good. They are more stupid about drinking than when first dropped. I would sooner take them from the cow as soon as they can stand, and learn them to drink before they learn to suck. I find this to be the easiest way, and, all things taken into account, it is just as good if they suck the cow. A little less milk will serve them; but it punishes them at weaning time, and is also harder on the cow. But they should have new milk at least three weeks; and if longer, it will pay, if care be taken of them afterwards. I consider sour milk no feed for a young calf. It might do as a drink for them at three or four months old. Let milk stand twenty-four hours, and then skim it, and it is worth something for them, and they will pay for all that may be lost in the cream.

As to the information in the second paragraph, it might do very well if people would take the trouble.

Not so with the third. I have seen many calves raised, but have never seen one much hurt with over feeding the first few weeks; but if, on the other hand, they get stunted at that age, it often takes more to start them again than they are worth at six months old. Mr. Maynard's cows must be good if half their milk is sufficient for a calf until four weeks old; but any farmer's wife should know when a calf's belly is full, whether suckling or feeding from the pail. I knew an old woman who used always to allow her calves so many panfuls, no matter what age or size; but she never had good ones. Care should be taken not to let them drink too fast.

In regard to letting them suck all summer, few people would do that, unless they intended making something of them; then of course they would continue to feed well. But even in that case I would prefer feeding them by hand with new milk. They become more docile, and are less troublesome at weaning time. J. N.

Canada West, April, 1859.

Planting Potatoes with Corn.—Last year I told you of my planting potatoes among corn, and with what success, that being the second year. I am now to relate my third year's trial, this being with the Mercer, which have always been, with me, more subject to the rot than any other kind I have raised. In digging them last fall, I found enough to prove that they were not wholly exempt from the disease, still there were far less than among those planted alone. The yield was not as good as by themselves, while I believe the corn was full as good, in both quantity and quality, as if there had been no potatoes there. My method is to fit the ground for corn, mark for rows one way, and plant across the marks. This gives rows both ways. I then plant a hill of potatoes in every space between each two hills of corn. This leaves the crop so as to be cultivated only one way, which may be repeated as may be required.—D., *Gates*.

Beans on a Sandy Knoll.—Last year a friend of mine, who had a sand hill of half an acre on his farm, which had never grown anything—not even weeds, concluded to try beans. He had the land plowed and harrowed, and about the first of June planted his beans, (*White Dwarf*,) in bunches, 3 feet by 2. After they came up they were well cultivated, and supplied with a handful of plaster to each hill. The crop when harvested yielded 22 bushels of as good an article as was ever raised. —J. M., *Norfolk Co., C. W.*

The Importance of Underdraining.—Here is a man who drained an eight-acre lot, and got 300 bushels of barley from it the next season. The farmer he bought the farm of had the honesty to tell him that the field was worth nothing but for pasture, and very little for that; and that whenever he broke it up and planted or sowed it with grain, it was a dead failure. This is now the most reliable field for a grain crop on the whole farm. A hard clay subsoil.—S. W.

Early Pasturing.—Stock are better kept in the yard in spring, till the grass gets a good start. Then turn them out for a few hours every day. Continue to give them dry food every day for a week or ten days, to prevent scouring.

A handful of dry peat in the hill is said to have a good effect in preventing the potato disease.

HORTICULTURAL NOTES FOR THE MONTH.

The weather has not proved as warm as we were led to anticipate this time last month. Still, on the whole, we have had an early and favorable season. The majority of crops in the garden will be up by the time this number reaches our readers, —at all events, the *weeds* will be up. It would seem hardly necessary to say that weeds and cultivated crops cannot both thrive on the same soil; but many persons appear to overlook the fact. As far as possible, all crops should be sown in rows sufficiently wide apart to admit the use of the hoe, and as soon as the rows can be traced the soil should be lightly hoed. A little timely attention to this matter saves a great deal of after labor and trouble. The weeds will be more effectually destroyed, and the plants will be benefited by breaking the crust of the earth. The soil for all culinary vegetables can rarely be made too rich, but we are satisfied that in the majority of farmer's gardens poor soil is not so general as poor cultivation. We once visited the rich lands in the Sciota valley, in company with a very intelligent Ohio gentleman; and on alluding to the astonishing luxuriance of vegetation, he remarked, "All we have to do here is to *prevent* everything else from growing except the one crop desired." It is so in most gardens. Keep down the weeds, and the grateful soil will throw up the cultivated plants in rich abundance. Hoeing the soil is to some extent equivalent to manuring it. The primary meaning of the word *manure* is hand labor.

What gardener has not sighed for a full supply of water, and an easy method of distributing it to his drooping plants? But how few seem aware that on all but the sandiest soils, constant stirring is the best means of rendering the ground moist? We know an excellent farmer who entertains the opinion — and acts upon it — that by the frequent and judicious use of the horse hoe he could obtain a good crop of corn without a single shower of rain from the time it was planted till it was harvested.

On very light, warm soils, however, mulching is one of the best methods of keeping the soil moist. It checks evaporation, and smothers the weeds. On such soils, recently transplanted trees should always be mulched as soon as the warm weather sets in. So of strawberries, raspberries, blackberries, and gooseberries.

Some people talk of mulching with turnips and other broad-leaved plants, — forgetting that *all* plants in growing pump up water from the soil and evaporate it through their leaves. Nothing can be more absurd than to suppose that growing plants keep the soil moist by shading it from the sun. Every farmer knows that a summer fallow is damper than a field of grain or grass.

In many sections, much of the work alluded to in the *Farmer* for April will have to be performed this month. Lima and string beans can now be planted as then recommended. Plants from the hot-bed, such as cauliflower, celery, &c., can be thinned out if too thick, and pricked out in a sheltered spot till sufficiently hardy for final transplanting. Tomatoes should be set out in warm soil and a sunny situation as soon as the weather is sufficiently settled. Transplant them carefully, so as to disturb the roots as little as possible. Plants which spring up from self-sown seed often produce earlier fruit than those raised from seed sown in the open ground in the spring.

For cucumbers, dig holes six feet apart, two feet in diameter, and about a foot or fifteen inches deep. Fill with well rotted manure thoroughly mixed with the soil which came out of the holes. Then place a few inches of very fine, rich, sandy loam or leaf mould on top, and plant six or eight seeds in the centre of the hill. A small frame, or an old, bottomless cheese-box, placed on the hill, will be very useful in keeping off cold winds and checking the ravages of the bug. If they could be covered with glass or thin gauze, they would be still more advantageous. In this case it will be necessary to ventilate a little each day, soon after the sun has begun to shine upon the glass, and shut up about four or five o'clock in the afternoon, before the sun leaves the glass. The glass or frame should be lifted on the opposite side from which the wind blows. Water when dry with lukewarm water. When the plants have made three rough leaves, pinch the top out of each plant to make them branch, and leave but three plants in a hill. If not covered, examine the plants early in the morning, or in the cool of the evening, and kill the bugs.

For melons and squashes the hills may be made in the same way as for cucumbers. They should

be about five feet apart for the *Early Christina* musk melon, six feet for the water melons and the summer crook-necked squash, and eight feet for the *Boston* or winter squash.

Egg plants can be sown on a warm light soil, either where they are intended to remain or on a warm border, transplanting them during showery weather in June. Set the plants two feet apart.

Salsify, or the so-called vegetable oyster, requires similar culture to the carrot. Sow in rows one foot apart, and thin out to six inches in the rows.

THE CORK OAK.

The Cork tree (*Quercus suber*) bears a general resemblance to the broad-leaved kinds of *Q. ilex;* but when full grown it forms a much handsomer tree, though perhaps not quite so hardy. The nuts are sweeter, and have been eaten as human food in cases of necessity. Pigs eat them greedily, and get rapidly fat on them, producing a firm and very savory lard. The Spaniards eat the acorns roasted. The outer bark, the great thickness and elasticity of which is owing to an extraordinary development of the cellular tissue, forms the cork; which, after the tree is full grown, cracks and separates from it of its own accord. The inner bark remains attached to the tree; and when removed in its young state, is only fit for tanning.

The cork tree is found wild in dry, hilly places, in the south of France, in Italy, in a great part of Spain, and in the north of Africa. Its bark forms the cork of commerce, and appears to have been applied to useful purposes in the time of the Romans.

The acorns of the cork tree have been distributed throughout the United States, this spring, by the Patent Office. We see no reason why the cork tree may not succeed, especially in the more temperate sections of the country. Michaux strongly recommended its introduction into the Southern States, observing that it could not fail to thrive wherever *Q. virens* exists. It is readily propagated from acorns. There is nothing peculiar in its culture, except that the young trees should be pruned so as to have a clear stem of 10 or 12 feet in height, on which the cork is to be afterwards produced.

SPIRÆAS.

No family of ornamental plants has increased so rapidly in favor, in this country, for a few years past, or been more entitled to the attention they have received, than the the Spiræas. With few exceptions, they are quite hardy, even throughout Canada, and adapt themselves to a great variety of soils and situations. The different sorts vary much in their foliage and flowers. Many of them are of rare beauty and elegance, and all are highly ornamental and worthy of much attention at the hands of amateur planters. They are of the easiest culture, and are readily propagated either by layers or cuttings. To give even a brief description of the many sorts that are well deserving attention, would require more space than we have at present at command.

Annexed we give engravings of a few of the more prominent sorts.

SPIRÆA CALLOSA.

Spiræa callosa.—Dr. Lindley pronounces this "the handsomest flowering hardy shrub of July,

after the rose." It is a native of Japan. It derives its name from the presence of a small red callosity seated on the end of each of the numerous notches that border its leaves.

SPIRÆA LANCEOLATA.

SPIRÆA LANCEOLATA or REEVESII is another beautiful species, with large clusters of snowy white single flowers, that cover the whole plant in May.

THE DOUBLE-FLOWERING PLUM-LEAVED SPIRÆA (*S. prunifolia flore pleno*) is also a well-known and beautiful species, with small, double, white flowers in May. Its habit is slender, erect, and regular; and when in bloom, every branch is like a wreath of white daisies. The color of the foliage in the autumn, too, is a great point of merit, being a bright orange with a light tint of red.

SPIRÆA ULMIFOLIA.

SPIRÆA ULMIFOLIA is a well-known and beautiful shrub, with broad leaves and large trusses of white flowers.

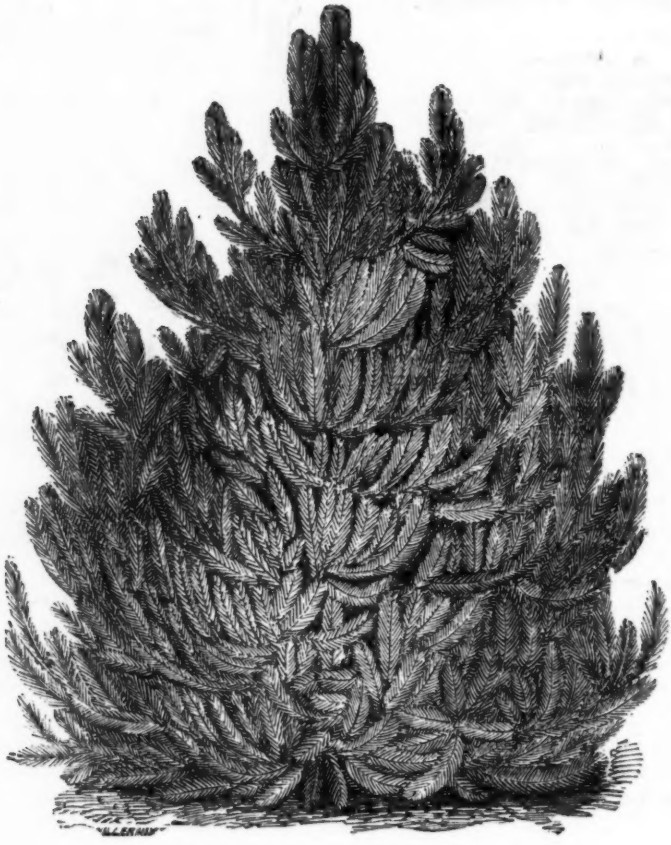
SPIRÆA GRANDIFLORA.

SPIRÆA GRANDIFLORA is a newer species, discovered by Mr. FORTUNE in the north of China. Its conspicuous large flowers can not fail to recommend it as a very desirable ornamental shrub.

We hope, during the coming summer, to be able to make further illustrations and remarks in reference to this beautiful tribe of plants. Many of the Spiræas are natives of the Northern United States —some of Europe and China. A part of them are low shrubs, from three to five feet high; and part are herbaceous plants, which throw up shoots each season, some from four to six feet high, and which die back at the end of summer.

EXOTIC GRAPES.—BUIST, in his *Garden Almanac*, selects the following eight as the best varieties of exotic grapes for general cultivation:—*Black Hamburg*, *Black Frontignan*, *White Frontignan*, *Trebiana*, *Black Tripoli*, *White Muscat*, *Golden Chasselas*, *West St. Peters Mitchell's*. After twelve years practice in this country, I should select these:—*Black Hamburg*, *Black Prince*, *Zinfindel*, *Barbarossa*, *Syrian*, *White Muscat of Alexandria*, *White Hamburg*, *Muscat Hative*, sometimes cracks.

Black Tripoli, a large grape; it stands in the same position among exotic grapes as the *Charter Oak* grape does among the hardy varieties. *Trebiana*—I don't know that variety; can you describe it? *West St. Peters Mitchell's*—I suppose that is *Oldacre's West St. Peter's*. *White Frontignac*—rather ticklish. *Golden Chasselas*—too small for general cultivation, as is also *Black Frontignan*.—P. Q. R., *Queens*, *Queens Co.*, *L. I.*



AUSTRIAN OR BLACK PINE — PINUS AUSTRIACA.

THE AUSTRIAN OR BLACK PINE.

This beautiful and hardy evergreen was introduced into England in 1835, and is now more extensively propagated there than any other foreign pine. It is perfectly hardy here, and has been extensively planted. It well deserves its popularity. No grounds are complete without it. The annexed engraving is taken from a beautiful specimen growing in this city. The artist has hardly done it justice. The most striking peculiarity of the tree is that the branches are produced in regular whorls, at first inclined upward toward the trunk, then spreading horizontally, and finally drooping at the extremity. In full grown trees, the top becomes flat and spreading to a great extent. The bark of the shoots of the current year is of a greenish yellow, regularly and deeply raised by the insertion of the leaves, furrowed, and shining.

The Austrian pine prefers a deep, dry, calcareous sand; but it will succeed in any soil, provided it is loose; and it even loves a moist soil, if not too wet It thrives best in situations having a southern aspect. It has remarkably large, deep-penetrating roots, and grows with great rapidity when young. Mr. Lawson, of Edinburgh, who first introduced this pine into Great Britain, states that he sowed the seeds on light sandy soil, and at the end of the first season the plants were twice as large as those of *P. sylvestris* (Scotch Pine) sown at the same time in the same soil. In this country, its general rate of growth is about the same as the Scotch Pine. In Austria, it attains the height of 100 feet, and produces a strong, resinous, and superior timber, much valued when kept dry; and is said to surpass even the larch in resisting the injurious effects of water, or of alternate moisture and dryness. It thrives well at great altitudes, and is perhaps the hardiest of all pines.

CULTIVATION OF THE GRAPE.—No. 4.

The foregoing remarks are more applicable to the culture of the *Catawba* grape in the Western States; but it is a very precarious grape in New York State. On the other hand, the *Isabella* has been found not to do so well in the Western States as the *Catawba*, or when stubbed down every year to a mere stump, as is necessary when trained to one stake three or four feet high; but it is remarkably well adapted to the State of New York, and for trellis training.

I will here give one or two cuts of trellis training, well suited to the *Isabella*, which are remarkable for their simplicity. The preparation of the ground, and the treatment of the vines for the first two years, are the same as recommended above. The vines are planted ten feet apart in the rows, and the rows six feet apart, running east and west. In the spring of the third year, the vine is cut down to eight or ten inches in height, the posts are set midway between the vines, and the wires fixed. During the summer, two canes are trained up across the wires, and let grow to their full length, the laterals being pinched out during the summer, as previously recommended. At the winter pruning of the fourth year, the canes are cut to five feet in length, and tied down horizontally to the bottom wire, as in fig. 20. During the summer, shoots must be trained from these horizontal canes, at fifteen to eighteen inches apart, and carried up perpendicularly and carefully secured to the wires. These shoots will all show fruit, and cane *b* may be allowed to bear. When it has grown seven or eight leaves in length, it must be pinched in to two or three leaves above the highest bunch. Cane *a* must have all its fruit cut off, and be allowed to grow to its full length, or one or two feet above the highest wire, when it may be stopped. In the spring of the fifth year, cane *b* is cut out to the lowest good bud, and cane *a* is cut back to the highest wire. This summer, cane *a* is allowed to bear fruit, as indicated, and cane *b* at the same time is trained up from the spur. In the spring of the sixth year, cane *a* is cut out to the line drawn across it, and a new cane trained up from its spur while cane *b* is bearing fruit. Thus, no cane is ever allowed to bear twice; new wood is supplied every year for bearing the next, which always gives the finest fruit. Section 1 in fig. 20 shows one mode of trimming the canes, and section 2 another. Section 1 is more applicable to a higher trellis—say six or seven feet,—while section 2 is only adapted to about five feet, from its being more heavily cropped. The trellis represented is only four feet high from the ground, with bearing canes three feet in length. These can very easily be carried one or two feet higher.

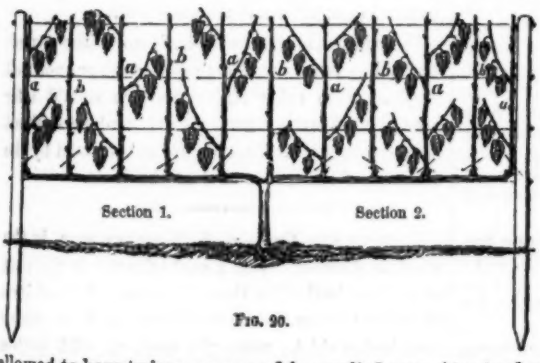


Fig. 20.

Fig. 21 shows another mode of training, the principle of which is the same as the preceding, with the advantage of the vine being more slowly and regularly increased, and without the necessity of such a great bulk of the vine having to be cut away every year. In the former method, all the largest canes have to be cut away every year; while in this we cut away only the small wood, and the great bulk of the vine remains. This mode of training is readily seen from the cut. In the summer of the third year from planting, two horizontal canes are trained to the bottom wire, and one straight up the middle. In the spring of the fourth season, the upright cane is pruned down to two feet above the horizontal canes. When the vines have begun to grow, and it is sure the three upper buds are safe and secured to the wires—two horizontal and one upright—the other buds lower down the center cane are rubbed out. The two lower canes are pruned back to five feet in length, the width of the trellis. During this season, while the second tier of horizontal canes are growing, the lower are throwing up shoots (marked *a*, *b*). These shoots will all show fruit; and those marked *a* are allowed to bear, while those marked *b* must have their fruit all cut off. In the winter of the fifth season, these shoots, *a*, *b*, are pruned down to the lowest good bud (indicated by the line drawn across them). The two upper horizontal canes are pruned in to five feet, or the width of the trellis, as the lower ones were last season. This (the fifth) season, the shoot from spur *b* is allowed to bear, while that from spur *a* is allowed to rest. Thus, each alternate spur is made to bear and rest each alternate year. If this vine be carried up three tiers high, it will then be about seven feet high from the ground to the top, which is high enough for any man to stand on the ground and work at.

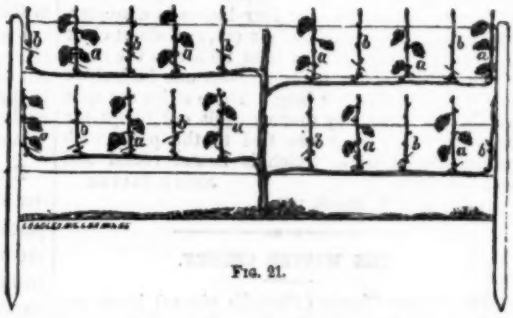


Fig. 21.

I have no doubt that these modes of training may seem a little tedious to the uninitiated; but, when

understood, they are as simple as any other; and no one who can not exercise judgment, care, and skill, has any business in a vineyard. It may be an objection that wire trellises will be too expensive to warrant their erection. They may be more expensive, in the first instance, than staking out the vineyard with stakes; but in the end they will be the cheapest. The annual attention required in refastening the stakes, and taking out bad ones and supplying their places with new ones, will soon add up to the cost of the wire trellis; and the trellis, if well set, will last a great many years.

The French, near Fontainebleau, have a cheap way of making very good and durable trellises, for the raising of table grapes upon. They set posts of locust, about three or four inches in diameter, two feet in the ground and six out, and about eight or ten feet apart. They then tie across the posts strips of white oak or ash, about one inch thick and ten or twelve feet long. These strips are split out in the same way that we split out hoops for flour barrels. They are tied to the posts with annealed iron wire, which is bound round and twisted tight. JOSIAH SALTER.

Rochester, N. Y., March, 1859.

THE WINTER CHERRY.

The Winter Cherry (*Physalis viscosa*) is an annual of the *Physalis** family. It is of the same habit as the tomato in growth. It grows anywhere in the United States, and is used in various ways—for pies, preserves, pickles, &c. The fruit grows in an inflated calyx or husk, is about the size of a Catawba grape, and of a light yellow or transparent color. It falls to the ground when ripe, and the fruit may easily be seen through the husk. It has various names, such as ground cherry, cape gooseberry, tomato gooseberry, strawberry tomato, &c. The name winter cherry is given it from the fact that it will keep three or four months without any preparation, by just keeping it in the husk. We have some of the fruit now (Feb. 7th) as fresh and good as when it was gathered from the plants, although it has been frozen several times.

It should be planted early, if you want early fruit. It can be planted in a box in the house, or in a hot-bed, and then transplanted into the open ground, about two and a half or three feet apart, and then cultivated the same as the tomato. Planted in good, rich ground, and well cultivated, it will produce from a pint to a pint and a half per plant; and I think we have had some plants which have yielded a quart or more. The plants do not come up for three or four weeks after planting, and it does not grow very fast the first three or four weeks after it comes up; but after it gets fairly started, it grows very fast.

It is excellent when eaten raw, and makes a preserve very much like honey. To preserve it, add a pound of sugar to a pound of fruit, and cook together till you think it is done, and then add a few drops of the extract of lemon, or a medium-sized lemon, to every four pounds of the preserves. For pickles, take the fruit when nearly ripe, put it in vinegar, with spice and sugar enough to suit the taste.

When once introduced into a garden, there is no fear of losing it, as it will, like the tomato, grow from seed left in the ground all winter. We think any person who tries it once will not be willing to be without it again. It takes the place of many of the smaller fruits for the various ways in which it is used. It is easily grown, and any person who wants fruit can have plenty by planting the seed. There are many varieties of it—some good and some not. It is found growing wild in many parts of this State, and I suppose in other States.

I advise every one to plant seed of the winter cherry, if they can do so; and I think they will not regret the time and trouble expended in raising it, provided they get the true kind and have it cooked right. F. A. FLEMING.

Curwensville, Clearfield Co., Pa., 1859.

Remarks.—We are compelled to conclude that our correspondent, from the high estimation he places on this plant, can not have a good supply of the small fruits, such as the many good strawberries that are now cultivated; the new varieties of currants, such as *Cherry*, *White Grape*, *White Dutch*, &c.; of *Brincklé's Orange* raspberry, or the *Autumnal Bearing*, *Belle de Fontenay*, and *Merveille de 4 Saisons;* of the *New Rochelle* and *Dorchester* blackberries; of *Houghton's Seedling* gooseberry; and many other valuable fruits that might be mentioned.

The *Physalis viscosa* we know very well, but could never discover anything in it which would entitle it to cultivation while a currant bush or a wild blackberry could be made to grow in our garden. Its keeping qualities are certainly no better than those of our native grapes; and the same attention paid to a grape vine as would be required by half a dozen of these plants, would probably be productive of ten times as much fruit.

The winter cherry, however, is not without qualities which recommend it to those who are not well supplied with other fruit; and we should infer from the advertisements of the gardeners about Chicago, that its full merits are appreciated by the denizens of the Queen City of the West.

Rabbits and Trees.—A. Woolley says, in the *Prairie Farmer*, "Lay a coat of mud on the part of the tree barked by the rabbit, extending an inch above and below the injured part; lay it on one or two inches thick; wrap the mud on with cotton cloth, and tie with a string. If the trees have not become dry, it will save them, provided it is kept on long enough."

* *Physalis* is the name of the genus to which this plant belongs. The natural order or family is *Solanaceæ*, to which belong the common potato, tomato, red pepper, and egg plant; as also tobacco, the petunia, bittersweet, deadly nightshade, and other well known plants. EDS.

AMERICAN TREES AND TREE-PLANTERS.

THERE has always been a party in this country, with views and feelings opposed to the destruction of our native forests. At first small, and little heeded, this party has gradually increased, until it now numbers its thousands. Their fitting title would be that of American Philarborists or Tree-lovers. Their doctrine is that trees have economic and æsthetic uses which entitle them to be respected in the forest, and largely planted in orchards, avenues and parks. They claim that trees make generous returns for the room they occupy. The close relation of trees to the public prosperity, is seen in the present difficulty of finding sufficient water for the Erie Canal. The enlargement of the Canal and its business requires more water than formerly, when, in fact, the supply is alarmingly deficient. There is one reason for this deficiency in the wasteful cutting down of forests on the hillsides, whence flow numerous small streams that unite to fill the vast aorta of our inland commerce.

The destruction of trees not only diminishes the absolute quantity of rain, but prevents its accumulation in springs, shaded valleys, and swamps. A bare hillside will shed water like a roof. Let the trees remain as nature intended, and the same soil becomes a sponge, absorbing the rain as it falls, and sending it down little by little to the thirsty lowlands.

In the early stages of our country's growth, little attention was paid to the culture of trees. The names of the pioneer Philarborists are few, and their chief encouragement seems to have come from across the Atlantic. There is a queer old house still standing on the banks of the Schuylkill, that might be called the Cradle of American Botany. It was built by JOHN BARTRAM, who founded the first Botanic Garden in this country. BARTRAM was an honest Quaker, little noticed at home, but honored abroad, as a collector of rare trees and plants. He kept up an active correspondence with eminent savans in England. Dr. DARLINGTON'S recent publication of these letters created a pleasant effervescence in the literary circles of Europe and America. ANDRE MICHAUX, and his son FRANCIS ANDRE MICHAUX, should be remembered. They were Frenchmen, and served the French government. Yet most of their scientific labor was performed in this country. They were heartily attached to American institutions. They sent home about sixty thousand trees and plants, with many boxes of seeds, as the result of their searches in our nation's wilds. The younger MICHAUX lived to be eighty-five, and spent his last days in planting a group of American trees. His North American Sylva, recently edited by J. JAY SMITH, of Philadelphia, has no equal on the subject which it treats. He bequeathed $22,000 to Societies in Boston and Philadelphia, for special purposes connected with the propagation of useful trees.

Among the early Pomologists, WILLIAM COXE, of New Jersey, stands foremost. His work on the Cultivation of Fruit-trees was prepared without much help from previous authors, and is still appealed to as reliable authority. Mr. COXE sent scions of the *Seckel* Pear to the London Horticultural Society, of which he was soon after elected a member.

The name of DOWNING is dear to every lover of rural improvement. His Treatise on the Theory and Practice of Landscape Gardening, published in 1841, gave him a solid and brilliant reputation on either side the Atlantic. The book was thoroughly practical, yet all alive with poetry and sparkling sentiment. It was read like a romance, and removed the scales from eyes previously blind to the beautiful in trees and landscapes. The youngest son of a gardener on the Hudson, Downing was so reserved in his habits, that few suspected the rare qualities of his mind, before his appearance as an author. He had grown up as a neglected seedling might have done in an out-of-the-way corner of his father's grounds until its rich ripe fruit caught the gaze of passers-by, and pregnated the air with daintiest aroma. DOWNING was thought, by some, to be unsocial and haughty; yet there never lived a man more intensely American. It was a favorite idea, with him, that America was entitled to a style of Architecture distinctly its own, and suited to our climate, scenery and habits. The working out of this idea is clearly seen in his Essays and drawings. He was partial to American trees, and often exposed the folly of preferring such exotic impositions as the Ailanthus and the Abele, to the Maple, the Elm, and the Liriodendron. His whole life, genius and ambition, were devoted to the elevation of his countrymen, to the improvement of their homes, and the multiplying of their ennobling pleasures. His premature death, in 1852, so painfully remembered with the burning of the *Henry Clay*, was an irreparable loss to American literature and art.

Living Philarborists are doing much, at this time, to promote the knowledge and culture of desirable trees. Never was there a period when so much of capital, enterprise and research was given to this most important branch of national industry. The peculiar and promising feature of the present enthusiasm in tree-culture, is that its friends are forming themselves into groups, for particular studies and experiments. In the cultivation of Pears, MARSHALL P. WILDER, of Dorchester, Mass., takes the lead. He has rendered his countrymen an important service by testing, under his personal inspection, hundreds of imported varieties, a large proportion of which were found to be unsuitable for this country.

HENRY W. SARGENT, of Fishkill, has honorably won the position of an oracle on Evergreens. Ornamental planters are waiting with impatience for the promised work that shall embody the results of his large experience with Evergreens imported from foreign nurseries. — *Ex. from Prof.* NORTH'S *Address before N. Y. State Ag. Society.*

THE PEACH IN ILLINOIS.

NORTH of about 36° the peach tree is always more or less tender; and were it not for its habit of bearing while young, it would be folly for us of the North to plant it; and yet no fruit pays better, when you get it; and up here we most always have fruit when there are flowers. So far the fruit buds have winter-killed much oftener than the tree; though I have seen three large crops and some partial ones in this vicinity, and a few trees 12 to 15 years old, previous to 1856, when *all* were killed; and for that matter there was a pretty general winter-killing once before — about 1842. One good

crop may be counted on, even here, and that will pay for the trees and more too. Far south it is the most profitable fruit in general cultivation.

The peach likes a warm, light loam, deep and dry, not so stiff as good pear soil, but much like it otherwise. It will do well, however, on almost any well elevated grounds south; while here the highest, driest, and "poorest" prairie knolls, or hazle and tree-sprinkled "barrens" should be selected, when practicable; and soil that is "poor" in nitrogenized matters, always; for a large growth and a late growth of wood are to be avoided. On such soils, the peach is perhaps better without underdrainage than any other fruit tree. Best plant on or quite near the surface, however, and raise the earth over the roots to support the tree in its place. Plant trees to make low heads, and never more than one year old, if you can well avoid it.

The nectarine, which is but a smooth-skinned peach, comes in here. For varieties, you can depend on the books and catalogues, always remembering that some good sorts for the South will not ripen here.—J. A. KENNICOTT, *in Prairie Farmer.*

REMEDY FOR THE CURCULIO.

"To one pound of whale oil soap, add four ounces of flour of sulphur. Mix thoroughly, and dissolve in twelve gallons of water.

To one half peck of quicklime add four gallons of water, and stir well together. When fully settled, pour off the transparent lime water, and add to the soap and sulphur mixture.

Add to the same, also, say four gallons of tolerably strong tobacco water.

Apply this mixture, when thus incorporated, with a garden syringe, to your plum or other fruit trees, so that the foliage shall be well drenched. If no rains succeed for three weeks, one application will be sufficient. Should frequent rains occur, the mixture should be again applied until the stone of the fruit becomes hardened, when the season of the curculio's ravages is past."

THE above, being highly recommended, is copied from the *N. Y. Observer.* A correspondent of that paper, having tried the preparation on part of his trees, secured a good crop of fine fruit, while on those to which it was not applied no fruit was matured. Will not fruit-growers generally give it a faithful trial the coming season, and publish the result? I intend to test its efficacy, and will report accordingly. JOHN BRADFIELD.

STRAWBERRIES ON THE PRAIRIE.—This fruit will grow on any good deep soil, if not too wet; and yet it seems to like permanent moisture. Perhaps a deep, moderately rich, clayey loam, is best. Virgin prairie, broken up in May or June, trench-plowed in October or November, and set in vines the next March or April, has given large and cheap crops. Manure is seldom needed, and deep culture rarely fails to pay. *Necked Pine* and *Large Early Scarlet* are among the hardiest and easiest to cultivate on the prairies, but are scarcely so desirable as many of the larger sorts, hardy enough with a slight winter protection north, and mostly quite hardy south. For a choice of sorts, consult books and periodicals. *Hovey's Seedling, Burr's New Pine, McAvoy's Superior, Crimson Cone, Longworth's Prolific,* &c., have earned a good reputation West, and some of the newer sorts, like *Wilson's Albany,* &c., are very promising here.—J. A. KENNICOTT, *in Prairie Farmer.*

DOES IT PAY TO HIRE A GARDENER?

I AM a farmer with 150 acres of cleared land, with orchards, etc., as good as my neighbors; but I was not quite satisfied with my garden. It was, to be sure, as good as those of my neighbors, but I wished the garden better. The soil and situation were good, I had worked it, yet I was not suited. I hired a gardener in April, 1857, and in keeping a correct account of loss and gain found myself minus some $17. In looking back, I thought I could see where I had missed it, and not to be discouraged at one failure, I made a second attempt in 1858. This year I find the debt and credit pages are quite different from the former. I now find myself the gainer to the amount of $23.50 in 1858, besides the constant supply and use of many articles for the table, not taken in the estimate. Then the great enjoyment of the many delicacies my garden yields when a friend visits me, and occasionally to make a present of a dish of strawberries, gooseberries, or a few melons, as circumstances seem to justify, gives such a true relish to life that I shall pay more attention to my garden in future.

I believe my brother farmers are the losers by neglecting the garden. I know that I have lost by such neglect, and by the well known rule, judge others by myself. The garden pays full as well as the field. At or near the close of 1859, you may hear from me further on this subject.

A CANADIAN FARMER.

RAISING EARLY PLANTS.

MESSRS. EDITORS:—I notice in the March number of the *Farmer*, a plan for raising early plants in the shells of turnips, and no doubt they would answer a very good purpose; but a much more complete way for raising early plants for transplanting in the garden, is to make small boxes of common siding, say seven inches wide. Plane one side of the board, which is to form the inside of the box, then make your boxes from six to eight inches across the top, so as to suit the size of the plants that you want to put in them, and about one inch larger across the bottom, so that the box will slip up from the hill without any difficulty. These boxes are to be made without any bottom, and should be placed upon a shingle or thin piece of board, with one end shaved thin, so that it can be drawn out from under the box without disturbing the dirt or the roots of the plant. I have used this kind of boxes for the last two years, and find that they answer the purpose to my entire satisfaction. The boxes when in use should be kept in the hot-bed or in the kitchen; and if kept in the latter place, they should be kept as near the top of the room as possible, upon a shelf fixed for the purpose, as the heat is always greater near the top of the room than in any other place, and also more regular. THOS. C. HAGAMAN.

Bronte, C. W., March 24, 1859.

MULCHING is one of the best means of preventing mildew on the gooseberry, and it is quite probable that sulphur scattered on the leaves will be as beneficial as it is in checking the mildew on grapes. Have any of our readers tried it? If so, we should be glad to hear from them.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

LEMON PIE.—The juice of four lemons, six soda crackers rolled fine, four tea-cups of water, three tea-cups of sugar.

HEALING SALVE.—Take rosin, mutton tallow, and linseed oil, equal quantities; mix and melt; to be spread on linen when applied.

TO TAKE OUT INK STAINS.—Soak the article in sweet milk one day or more, then put on a little salt and rub it if not soaked out.

TURNIP PIE.—Take a turnip and pare and boil it; add a tea-spoonful of tartaric acid and a cup of sugar; season and bake as an apple pie.

A REMEDY FOR ANTS.—Dip a sponge in water, squeeze it dry, lay it on the shelf, sprinkle sugar on it, and when the ants collect throw the sponge into hot water.

BEER.—One gallon hot water, one quart molasses, stirred well; 15 drops oil sassafras, 10 drops oil spruce, 10 drops oil wintergreen; add one gallon cold water, and yeast.

TO MAKE GOOD BLACK TEA.—One teaspoonful for each person; pour cold water on the tea, and let it come to the boil, then add boiling water, a sufficient quantity for the number of persons.

CURE FOR WARTS AND CORNS.—The bark of a willow tree, burnt to ashes, mixed with strong vinegar and applied to the parts, will remove all corns or excrescences on any part of the body.

BUNS.—Three cups milk, one cup yeast, one cup sugar, and flour to make it a sponge; let it rise over night, then add another cup of sugar and one of butter; mould them into small biscuit.

TO MAKE VINEGAR.—Take one gallon each of molasses and whiskey, water thirty-six gallons, cider five gallons, brewer's yeast one half gallon, and expose to the temperature of about 77 degrees.

SALT PORK CAKE.—One pound salt pork, chopped fine, pour on a tea-cup of hot water; one quart of flour, two cups of sugar, one cup molasses, one teaspoonful saleratus; spice with cloves and cinnamon.

TO PRESERVE EGGS FRESH A YEAR.—Mix a handful of unslaked lime with the same quantity of salt, in three gallons of water; first pack the eggs, with the small end down, with some shavings to keep them down, and pour the mixture over them; be sure none of them are cracked.

RECEIPT FOR YEAST.—With a quantity of good leaven take a handful of hops, boil the same, leaving two quarts of water when boiled, which is to be poured upon the following ingredients:—Two tablespoonfuls of salt, half a tea-cup of sugar, a little ginger, four good sized potatoes grated raw, two tea-cups of flour. The whole, when light, to be corked and kept in a cool place.

LINIMENT FOR BURNS, WOUNDS, OR GALLS.—Take of tanner's oil and spirits turpentine one pint each, oil of tar and oil origannon one ounce of each; mix in a stone jug, then add half an ounce of oil vitriol, a few drops at a time; let it stand twenty-four hours, then it is fit for use. This is excellent for man or beast.

CUDBEAR.—A very quick and pretty color, for children's every-day wear of flannels and hosiery, can be made by using a sixpence or shilling's worth of cudbear, in the following way: Tie the cudbear into a cloth or bag; soak a few hours or over night in brass, then heat it, and put into the dye enough soft soap for a weak suds, and it is better to dissolve a little alum in it. Wash the articles in soap suds and put them into the dye; let it boil, stirring and airing frequently. When colored to your fancy, wash in good soap suds: can be put back if not dark enough. It dyes light colored soiled silk, and old white ribbons, a very delicate lilac color; woolen, a pink or purple; parametta, a cinnamon color; all wool delaine, a sort of maroon. It does not crock, but the color will not last good or wear long. It must never be allowed to freeze, or dry in the hot sun, for that fades it more.

TO DYE A VERY DARK BLUE.—Add to a common indigo dye, one tablespoonful of madder to one ounce of indigo.

TO DYE SLATE COLOR.—Boil green chestnut bark one hour; take out the bark, and add four ounces green vitriol for one pound woolen yarn or cloth; stir frequently one hour; dry before washing.

TO DYE SILK A RICH BROWN.—Boil chipped logwood in pure water one hour; put in your silks or ribbons, and stir them frequently for half an hour; dry them, wash in soap suds, and iron them quite damp. No mordant is used.

TO DYE SILK, OR WOOL, AN ORANGE COLOR.—Boil the skins of ripe onions half an hour; take out the skins, and add one ounce of alum to one quart of dye; put in the silks, stir often for half an hour; dry, wash, and iron quite damp.

TO COLOR WITH BUTTERNUT.—Soak butternut bark in warm water some time previous to coloring. Wash the articles, being very careful to get out all the grease-spots; then thoroughly rinse in clear water, (that it may be free from soap,) and put in wet into the dye, which should be scalding hot, but not boiling; air frequently, till sufficiently dyed; dry before washing. It dyes different shades in different seasons of the year. After washing the articles, press them wet, on the wrong side, and iron till dry.

TO COLOR BLACK.—Take one ounce of vitriol to two ounces of extract logwood; put a sufficient quantity of water in an iron kettle to dissolve the logwood in; dissolve the vitriol in a brass kettle. Wash whatever you color in very strong soap suds, and wet thoroughly in the vitriol water, wring them out, and turn the logwood into the vitriol; put the articles in, let them nearly boil, stir and air them as the color requires. When a good black, dry and wash well in strong soap suds, and rinse in several waters, otherwise it will crock; press while wet. This colors well lace, silk, worsted and cotton, and is not apt to fade.

THE WEATHER.—The weather must be a subject of daily interest. So numerous and important are its relations to the pursuits of men, that it would be more than stupidity to be unaffected by its changes. Still, the particulars can not be retained in our memories. We have no reliable resource but the records of meteorologists. These give us the variations of heat, or temperature, the great moving power; and the fall of water, the next great element of importance. Living in a country of such variation in the seasons, and with the obvious adaptation of the seasons to the welfare of man, we can not but expect great uniformity of climate amid the great variety. Though men seem disposed to consider chiefly the variations and to magnify the extremes, the records of meteorology compel us to believe in the great uniformity of action of all the agencies that can affect the climate of any particular place or section of country. With all the diversities of climate over the earth and in the different zones, whether torrid, temperate, or frigid, of every habitable region it has been true, and it is true in this year, that "seed-time and harvest, and cold and heat, and summer and winter, and day and night, shall not cease."

Consider some of these results:

The average heat at Rochester for 22 years is	47.4°
" " " of the whole State is nearly	46.7°
" " " at Albany is	48.4°

The mean heat of the several months is

	At Rochester.	*For the State.*	*London, Eng.*
January,	25.4	24.7	36.4
February,	24.5	24.1	38.3
March,	31.8	33.4	42.0
April,	44.5	45.3	49.9
May,	55.9	56.2	55.3
June,	66.5	65.6	58.9
July,	77.2	69.7	61.4
August,	68.6	68.5	59.1
September,	60.5	59.9	56.5
October,	47.9	48.8	49.9
November,	37.8	37.7	42.7
December,	27.8	27.4	39.1

Our temperature is very near that of the mean heat of the State. The extreme annual range is near three degrees above or below the average, though the common variation is less than two degrees in the annual temperature.

The average heat, for the twenty-two past years, of the

Spring months, is	44.1°
Summer "	70 8
Autumn "	48.8
Winter "	25.9

The average of the months, for forty-seven years, at London, as given in the above table, where the annual mean is 49.9°, shows a great difference.

The average quantity of water which fell here, in rain and melted snow, for the twenty-two past years, is 32.2 inches. The average of the State, about 34.9 inches.

The average water here, for the several months, is for

Jan.	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sep.*	*Oct.*	*Nov.*	*Dec.*
2.05	1.93	1.93	2.33	3.03	3.27	3.17	2.60	3.29	3.19	2.83	2.58

The average for the

Spring months is	7.28	inches.
Summer "	9.04	"
Autumn "	9.31	"
Winter "	6.57	"

The water of 1858 exceeded the mean by 8.7 inches. The average water at London, Eng., for forty years, is 20.7 inches, and has varied from 12 to 24 inches.

Weather for 1859.—*January.*—January was unusually mild, though a cold period prevailed from the 8th to the 11th, and the thermometer went down to 12° below zero. No sleighing.

February.—February was cooler in the first half, and much warmer in the last half; so that the average was near 5° above the mean for twenty-two years. The cold was not lower than 11° above zero in the month. These two months have been very warm and pleasant. In 1838, January was warm as last January, but February was then much colder. Very little sleighing this month. Quantity of water below the average for both January and February. Very little ice has been formed on our waters this winter.

March.—March was another warm month—more than 7° above the average, and the lowest was 14° above zero. Water rather above the average. Storm of rain and snow on the 9th, which carried off the snow from the eastern part of this State and of New England, thus closing the sleighing which had continued for 99 days in much of that section, and for 106 days in some parts of it; and had been long at Utica and in St. Lawrence county, at Saratoga, and far north into Canada. On the 18th and 19th was a violent storm of snow and rain and a heavy gale, in which the barometer fell lower than for many years at least, here being 28.14 inches—nearly half an inch lower than known at Rochester before. No depth of ice in March. Robins and early birds appeared in the first week of the month; blossoms of the soft maple on the 12th, and abundant a few days later—about two weeks earlier than usual. First steamboat from New York to Albany on the 9th.

The heat of each of the first three months of 1842 a little exceeded that of the past three months, and the average was of course a little greater. All the indications of the warm season, as birds, flowers, flies, and butterflies, were equal to those of this year. The average heat of the first three months was

	Jan'y.	*Feb'y.*	*March.*
In 1842,	29.61°	31.08°	39.77°
" 1859,	28.35	30.00	39.20

In no other year, for twenty-two years, does the heat of these three months so nearly agree.

First Half of April.—The mean of this part of April is 40.93°, and the mean the same half for twenty-two years is 40.94°. This is not so warm as last year for these two weeks, but is warmer than in 1857 and 1856. Adequate rain has fallen in the last six weeks. Grass and wheat seem to be starting earlier than common, and the latter is now very fine in the surrounding country. The farmer can begin his agricultural operations rather earlier than usual. It is yet to be seen, as we apprehend, whether vegetation will be more advanced at the end of this month than it was at the close of April last year.

The small quantity of ice formed over the country the past season is remarkable. Importation of ice from the Hudson, it is said, is resolved upon for the supply of our citizens. Even at Marquette, on Lake Superior, lat. 46 deg. 32 min., very little ice has been formed. No other proof is needed of the unusual warmth of the last winter.

April Premiums.—Our April Premiums, for the greatest number of subscribers sent in on or before the 15th of April, have been taken as follows:

1. McKinstry & Bros., Fredonia, N. Y.,	$20	for	141 subs.
2. J. D. Palmer, Thurlow, C. W.,	19	"	123 "
3. I. W. Briggs, Macedon, N. Y.,	18	"	95 "
4. S. Woolpert, Chili, Ind.,	17	"	74 "
5. John Dorr, Scottsville, N. Y.,	16	"	73 "
6. Capt. Converse, Wilkesbarre, Pa.,	15	"	70 "
7. C. W. Oliphant, G. S. L. City, Utah,	14	"	65 "
8. D. Williams, Harmony, N. Y.,	13	"	55 "
9. W. S. Miller, Saginaw City, Mich.,	12	"	54 "
10. G. B. Whiteside, Brockport, N. Y.,	11	"	53 "
11. D. Paul, Martinsburg, Ohio,	10	"	46 "
12. J. Singer, Johnstown, Pa.,	9	"	43 "
13. C. C. Kelly, Aurora, Ind.,	8	"	36 "
14. W. G. Thompson, Buffalo Run, Pa.,	7	"	34 "
15. Samuel Kelley, Mt. Pleasant, Pa.,	6	"	30 "
16. J. W. Robson, Telfer, C. W.,	5	"	29 "
17. R. J. Everitt, Modena, N. Y.,	4	"	26 "
18. G. W. Reynolds, Bushville, N. Y.,	3	"	25 "
19. D. S. Wood, Saline, Mich.,	2	"	24 "
20. A. White, Bluffton, Ind.,	1	"	23 "

Our friends can draw on us at sight for the amounts, or we will send it by mail, or in any other way they may designate.

To our Friends Everywhere.—One more number concludes the present half-volume of the *Genesee Farmer*. The next half-volume commences with the July number. In order to introduce the paper into districts where we have now few subscribers, we have concluded not only to take subscriptions for the coming half-volume, but also to offer a very liberal List of Premiums to those of our friends who are willing to act as agents in obtaining and forwarding the names of subscribers. There are thousands of farmers who are not now taking any agricultural paper, and a little effort will enable any one to get up a good list and secure one of the largest Cash Premiums. For Terms, Premiums, &c., see the last page.

Will not our friends everywhere, and especially where we have few subscribers, oblige us by presenting the claims of the *Genesee Farmer* to their neighbors. By so doing they will lay us under renewed obligations, and greatly increase our circulation and influence.

Wheat in Canada.—Mr. J. M. Patterson, of Richmond Hill, C. W., writes us, April 11:—"Wheat is looking extremely well. In a journey of some 150 miles, east and west, through the Province north of Lake Ontario, I hardly saw a poor field of wheat, where the land was properly drained of surplus water."

The crop of turnips, mangel wurzel, &c., in Great Britain, is estimated at twenty million tons.

Wheat Prospects.—Notwithstanding the constant exposure of the wheat, and the alternate freezing and thawing for the last eight weeks, our prospects are good for the present. If the weather proves favorable to its growth and early maturity, we may escape that detestable pest, the midge. During the past month I have seen thousands of acres of wheat in Canada, and, except the late sown, and that on low, heavy soils, it looks remarkably well. Courage and patience, farmers. There are "good times coming—wait a little longer."—R. W. S., *Woodstock, C. W.*

The *Gardener's Monthly* is the title of a monthly horticultural journal published at Philadelphia, and edited by Thomas Meehan. Mr. M. is an experienced horticulturist and an able and practical writer, and his paper is destined to occupy the first rank among the horticultural periodicals of the day. It deserves a large circulation. Price $1.00 per annum.

Small Egg.—N. Kentler, of Greece, N. Y., has shown us an egg, laid by a Cochin China hen, which is little if any larger than a robin's egg. It weighs only 2 pennyweights and 18 grains. When the "hen fever" was at its height, we often saw statements of large eggs from Asiatic fowls, but never recollect seeing an account of one so small.

"How to do Good and get Paid for it."—Read our List of Premiums, on the last page, for the greatest number of subscribers to the next half-volume of the *Genesee Farmer*, and then ask your neighbors and friends to subscribe. By so doing, you will benefit us, the cause of agriculture, your neighbors, and yourselves.

Crops in Ohio.—Wheat generally looks well. Peaches are not killed. Grain of all kinds except oats was a tolerable crop last year in Richland Co.,—some wheat and corn very good; but through the north-western portion of Ohio it was a grievous failure. In a journey of 300 miles, I saw very few *crops* of corn out of Richland Co. If other parts were like that through which I traveled, grain must be scarce before harvest.—C. P., *Mansfield, O.*

Inquiries and Answers.

Lime for Wheat.—(New Subscriber.) We should prefer to apply the lime to the "river bottom land" without first mixing it with muck. On dry, hilly land, deficient in organic matter, it might be well to compost the lime with muck. It is a disputed point whether, in limeing summer fallows for wheat, it is best to put the lime on early in the spring, before the first plowing, or not till near seed-time. *Theoretically*, we should say the earlier the better, so that the lime would have a longer time to act on the soil, and thus prepare the food needed by the wheat plant. *Practically*, however, so far as our observation extends, it seems to make very little difference.—Apply the lime early, if you can; but if not, apply it late. It seldom pays to apply less than fifty bushels per acre. If your land needs underdraining, you need not expect much benefit from the lime.

Burning Land, &c.—(B. Baker, Ind.) Is not the beneficial effect you speak of, due in a good degree to the ashes left on the soil from the burnt logs?

Some kinds of clay soils are much improved by burning, or rather charring. A little organic matter is undoubtedly dissipated, but other portions are rendered more active. The phosphates and alkalies are rendered more soluble. The practice has been adopted in some parts of England for many years, and is still continued. Investigations have recently been instituted by the chemist of the Royal Agricultural Society, and he thinks the practice one which can be profitably adopted on many clayey soils. That it ultimately injures the soil, we have no reason to suppose.

Woody fibre, such as chips and sawdust, has very little manurial value. It has a good mechanical action on stiff soils, rendering them light and porous. Lime, ashes, &c., decompose woody fibre and other organic matter in the soil.

Crops for Soiling in Illinois.—We are much in want of a summer fodder for our work horses, down in this State—some green, succulent herbage, that would be grateful to their parched mouths, when cultivating the corn, &c., in June. Somehow they do not relish green oats. In the moist, saline atmosphere of England, the lentil, tare, or vetch, succeeds admirably. I have tried it two seasons here, but without success; the climate is too dry for it. Have you or any of your readers tried lucerne? If so, I would like to know with what success; or of any other forage plant that answers the purpose.

The past two seasons have not been good for farmers hereabout, unpropitious weather bringing light and inferior crops. Much sickness, awfully bad and almost impassable roads, have been the prevailing characteristics. Good spring wheat, for seed, is worth here $1 per bushel; oats, do., 75 cts.; potatoes, do., $2. Hogs are scarce; many have perished from want of food and the epidemic. The inference we draw is, pork is likely to be dear next fall. Vast flocks of wild fowl are migrating over us to the north, reminding us to get plows and implements into order for this year's campaign. God grant it may be succeeded by more prosperous results than the last two.—Edw. Billingsley, *Zanesville, Ill., March* 18, 1859.

We hope some of our correspondents will give their views on this subject. In this section, we know of nothing better for soiling horses than red clover. Have a few acres near the barn. Top-dress it heavily in the fall, with well-rotted manure. It will start early in the spring, and furnish an abundant supply of good, succulent, and nutritious food. It can be cut two or three times. But if it is only wanted early in the season, after the first cutting it may be allowed to go to seed, when a large crop may be expected.

We fear lucerne can not be profitably grown where land is cheap and labor dear.

Apple Tree Borer.—(N. G. Harrison, *Lawrenceburgh, Tenn.*) We suppose the "wood worm" to which you refer is what is more commonly known as the Apple Tree Borer, (*saperda bivittata,*) which is a common enemy to the apple tree in all sections of the Union.

The best preventitive for these worms is to rub soft soap on the bark about the base of the tree, and at the junction of the lowest limbs, in the month of May, or very early in June in high latitudes.

To rid a tree that is infested with the borer, take a sharp knife and scrape off the rough outside bark of the tree, which may be done without injury, and then the entrance to the hole of the borer may be discovered by a small black spot appearing under the white bark, which is the terminus of the Channel which it has made. By cutting downward into the tree, from this point, for two or three inches, the worm may be found and destroyed.

The use of soft soap, as mentioned above, will be found very efficacious if attended to every year.

Rye.—(H. G.) Rye is supposed to be indigenous to the mountains of the Crimea, where it is found wild. Karl Kock found it on the granite round the village of Dahimil, at an elevation of from 5000 to 6000 feet. The ears were not more than 1 to 2½ inches long. Its native country explains why it is so much hardier than any variety of wheat, the southern origin of which is now nearly certain.

"Is Corn Hard on Land?"—(Henry Moyer, Chester Co., Pa.) This is a question which involves so many considerations that we can give no satisfactory answer in our limited space this month. We should be glad to hear from our correspondents on the point. What is your own opinion?"

Weeds in the Manure Heap.—(J. Norrish,) We do not know of anything that can be added to the manure heap to destroy Canada thistles, red root, &c.

English Russet Apple.—Can you or any of your correspondents inform me why the *English Russet* is never alluded to by any Fruit Growers' or Pomological Society in their reports, as a desirable apple for cultivation, as it is a very hardy tree, an enormous bearer, and will keep the year round? I have heard from parties here, who are acquainted with it and the *Roxbury Russet*, that it is far superior, in every respect, to the latter. Barry, in his *Fruit Garden*, speaks very highly of it; and, as a profitable market apple, worthy of general cultivation: yet I never hear it alluded to, or that it is planted at all in your section. Can you tell me how it is? Is there any reason for it not being cultivated more?—A. S. D., *Delaware, C. W.*

Shade of the Black Walnut.—Permit me to ask, through your paper, if the shade of black walnut trees will kill fruit trees. I have planted peach and cherry trees several times, for the past few years, so that the shade of the walnut would fall directly on them some part of the day, and as yet have never saved a tree, while others adjoining have succeeded well. Will you or some of your correspondents answer?—Z. B. S.

Ash and Smoke-House, &c.—I wish to build an ash-house, smoke-house and dry-house to dry fruit in, all combined. The size will be 6 by 8, or 7 by 9 feet, and built of brick. Will some of your correspondents give me the best inside plan, and have it fire proof. There must be a chimney and place to set a stove.—P. W. Hall, *Pittsfield, Lorain Co., O.*

Sweet Potatoes.—Will you or some of the numerous readers of the *Genesee Farmer* inform me which is the best and most economical way of keeping sweet potatoes during the winter season, on a small scale, so as to be good for winter use, and also in order for sprouting in the spring? —J. W. B., *Rossville, Ind.*

Ground Hay.—Will some of your correspondents give me their opinion in regard to ground hay as an article of food for cattle, horses, &c.? Also, if I can grind a ton a day with two-horse power, if it will pay for the trouble?—J. W. H., *Westport, Conn.*

Cement for Roofs.—Is there any composition for a cement for roofs of buildings that is cheap and durable? If so, how is it made and used?—O. P., *Yorkshire, N. Y.*

New Advertisements this Month.

Agricultural Implements—Wheeler, Melick & Co., Albany, N Y
Prince Albert Potato Sets—M. L. Parker, Lyndonville, N. Y.
Gladding's Hay Elevator—C. E. Gladding, Troy, Pa.
Rochester Agricultural Works—A. Gordon, Rochester, N. Y.
Piano Fortes—Boardman, Gray, & Co., Albany, N. Y.
Garden Seeds—P. Sutton, Ransom, Pa.
Peabody's Early Prolific Dent Corn—J. O. Bloss & Co., Rochester, N. Y.
Top Onions—J. O. Bloss & Co., Rochester, N. Y.
Nansemond Sweet Potato Plants—Emory Luce, Ashtabula, O.
Nansemond Sweet Potato Plants—O. S. Murray & Son, Twenty Miles Stand, O.
Virginia Farm for Sale—G. B. Wallace, Fredericksburg, Va.
Profitable Employment—Robert Sears, New York.
Albany Tile Works—C. & W. McCammon, Albany, N. Y.
Sorghum Sugar Cane—Hedges, Free, & Co., Cincinnati, O.
Hubbard Squash—James J. H. Gregory, Marblehead, Mass.
Ketchum's Combined Harvester—R. L. Howard, Buffalo, N. Y.
Cabbage Seed—J. M. Thorburn & Co., New York.
Prince Albert Potatoes—D. Norton, Jr., Pittstown, N. Y.
Blood Stock—William Redmond, New York.
Country Life—John P. Jewett & Co., Boston.
Bedding Plants, Dahlias, &c.—C. W. Seelye, Rochester, N. Y
Seedling Evergreens—C. W. Seelye, Rochester, N. Y.
Holton's "Six Weeks" Potatoes—Charles C. Holton and E. D Hallock, Rochester, N. Y.
Langstroth on the Bee—A. O. Moore & Co., New York.
Farm Drainage—A. O. Moore & Co., New York.

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,
ROCHESTER, N. Y., APRIL 22, 1859.

FLOUR AND GRAIN.—Heaviness is the prevailing characteristic of the market for Flour and Grain. Flour has declined 50 to 75 cts. during the past month, with the exception of choice Family Extras, the price of which has been tolerably well sustained. Wheat is not relatively as much lower as Flour. The tendency of both, however, is still downward. Coarse Grain is generally lower, with a liberal supply.

The appearance of the growing Wheat in different parts of the country is spoken of as decidedly favorable, and an increased yield is regarded as certain, if no unpropitious event should occur. It must, however, be borne in mind that it is too early to predicate an opinion as to the future crop. The accounts from England and the continent of Europe are of the same general character. The Wheat plant looks promising, and the weather has been very favorable for spring seeding. The threatening clouds which hover about the political horizon constitute the only gloomy feature in the otherwise cheering prospect. This, we must nevertheless admit, is at present a very portentous one.

The crop of Wheat, in this country last year, has been estimated at one hundred and eighty million bushels. We regard this estimate as an extravagant one, similar in character to many statements made in relation to this matter, misnamed statistics. The above quantity of Wheat would produce forty million barrels of Flour, allowing four and a half bushels per barrel. Suppose the population of the country to be thirty millions—an exaggerated estimate—reduce that number four millions for slaves who probably consume no Wheat Flour, and allow Corn Meal, Oat Meal, Rye Flour, and Buckwheat Flour, to be used, generally, to an extent which would be equivalent to six million more, and we have an equivalent of twenty million using Wheat Flour exclusively. These would consume twenty million barrels a year, allowing one barrel to each man, woman, and child, which may be regarded as a near estimate. Where then is the remaining twenty million barrels of Flour, or its equivalent ninety million bushels of Wheat? We believe the exports of Wheat, and Flour reduced to Wheat, from New York, since the first of September, do not exceed one million bushels. New York exports as much, or more, than all other ports together. It may be generally conceded that the Wheat is not in the country? Where then is it? The inevitable conclusion is, that no such quantity has been produced; and although we have seen higher estimates in former years, we believe that one hundred and eighty million bushels of Wheat was never yet produced in these United States in any one year. The next crop has been estimated at one hundred and fifty-eight million bushels. If it should equal this estimate, we believe there will be a larger disposable surplus than has heretofore existed in this country.

PROVISIONS.—Pork, under the influence of large arrivals, is lower and without animation. Butter is lower. In other articles not much change.

ROCHESTER MARKET.—April 22.

FLOUR—Superfine Western, $5@$5.50; extra Genesee and Canadian, $6.50@$7.75; market less firm.

GRAIN—Wheat—but few arrivals, and little doing; white Canadian and Kentucky, $1.60@$1.65; red, $1.2c@$1.30. Corn, 70c@75c. Barley, 65c. Oats, 45c@50c. Rye, 75c@80c.

SEEDS—Clover, $4.75@$5. Timothy, $2.25@$2.50. Flax, $1.50

PROVISIONS—Mess Pork, $17.00@$18.00. Dressed hogs, $7@$7 25; retail, 10c. Mutton, 7c by the carcass; retail, 8c@10c. Beef—side, 6c; retail, 8c@11c. Hams, 9c@10c; retail, 12c. Shoulders, 7c@8c; retail, 10c. Lard, 10c@12c. Butter scarce and firm at 19c@20c; retail, 22c@24c. Cheese, 10c@11c. Eggs, 11c. Potatoes, 31c@44c; retail, 50c@62c.

CATTLE—Live weight, 4¼c@5¼c per lb.

SHEEP—$5.00@$6.00 per head.

HAY—$7@$11 per ton. Advancing.

WOOL—40c@55c per lb.

NEW YORK MARKET.—April 22.

FLOUR—The Market for State and Western Flour is dull. Superfine State, $4.85@$5.40; extra do, $5.80@$6.25; Michigan, Indiana, Ohio, and Iowa superfine, $5@$5.40; extra do, $5 85@$7.40; shipping brands of Ohio round-hoop, $6.2c@6.40. Southern Flour less active; mixed to good Baltimore, $6@$6.50; Brandywine, $6.60@$6.65; Georgetown, $6.6c@$6.75; Petersburg city, $7@$8.25; Richmond city, $7.40@$8.50; Gallego and Haxall, $9. Canadian Flour, $6.50@$7.40 for the range of extras. Rye flour dull; fine and superfine, $3.60@$4.40. Corn meal in moderate demand; Jersey, $3.90; Brandywine, $4.20; puncheons $19.50@$20.

GRAIN—Wheat dull and lower; white Genesee, $1.50; white Michigan, $1.55@$1.65; white Kentucky, $1.70; red Western, $1.42@$1.45; Milwaukie club, $1.25@$1.30. Rye firm at 86c@87c. Barley dull; State sold at 75c. Oats dull; Virginia, 46c@48c; Jersey, Delaware, and Pennsylvania, 50c@52c; State, 52c@53c; Western and Canadian, 53c@58c. Corn lower; 58c@58½c for Jersey and Southern yellow; mixed Western, 53c.

SEEDS—Clover—red, 7¾c@9c per lb. Timothy—mowed, $2.25@$2.37½; reaped, $2.50@$2.75 per bush. Red top, $2.62½@$2.87½ per five-bushel bag.

PROVISIONS—Pork without animation; new mess, $17.25@$17.37½; old do, $17; prime, $12.50; thin mess, $16; prime mess, $15.25; clear do, $19.50@$20. Beef in fair demand and steady; country mess, $7.50@$8.75; country prime, $6@$7; repacked Western, $9.50@$11.50; extra mess, $12.50@$13. Low grades of Beef dull. Beef hams, $15@$17.25. Bacon quiet at 9c. Hams, 9¼c. Shoulders, 6¼c@6¾c. Lard, 11¼c@11¾c. Butter—new State, 14c@20c; Orange Co., 22c@25c; Ohio, 8¾c@12c. Cheese—fair to prime, 8c@10c.

CATTLE—First quality, 11¼c@12c; medium, 10¼c@11c; ordinary, 9¼c@10c; extra, 12¼c. The general average 11c.

SHEEP—Average about $6 per head. Tolerably fair sort, 6c@6¼c per lb. live weight.

HOGS—5¾@6¼c per lb. gross.

WOOL—Saxony fleece, 58c@62c; full-blood Merino, 55c@58c; ½ to ¾ do., 48c@50c; native and ¼ do., 42c@45c; extra pulled, 48c@55c; superfine do, 45c@45c; No. 1 do., 38c@55c.

PHILADELPHIA MARKET.—April 21.

FLOUR AND MEAL—Superfine and extra, $6@$6.50; fancy, $6.75@$7.25. Rye flour, $4.18¾@$4.25. Corn meal, $3.87½ for Pennsylvania.

GRAIN—Wheat—red, $1.58@$1.56; white, $1.60@$1.65. Rye in demand at 85c. Corn firmer; yellow, 57c. Oats, 52c@53c.

PROVISIONS—Pork lower; new mess, $17.25; old mess, $17@$17.12; prime, $12.40@$12.60. Beef in moderate demand; country prime, $6.50@$7; country mess $8@$9; re-packed mess $9.25@$11.25; extra do., $12.50@$13; prime mess inactive at $17@$21. Beef hams dull at $14@$17 per bbd. Bacon quiet at 8c@10¾c. Hams, 8c@9¼c. Shoulders, 6c@6¾c. Lard quiet at 11¾c@11¾c. Butter and Cheese firm.

SEEDS—Clover, $5@$5.50 per bushel.

BUFFALO MARKET.—April 22.

FLOUR—In limited demand. State, $5@$5.25; Indiana, Ohio, and Michigan extra, $5.75@$6.25; favorite brands of double extra, $6@$6.75.

GRAIN—Wheat steady with a fair demand; Chicago spring, $1; Milwaukie club, $1.15@$1.20; Indiana and Ohio white, $1.40@$1.45; Ohio red, $1.35. Barley quiet; 60c@70c for the range. Rye firm at 90c. Peas—ordinary, $1.25; Marrowfats, $1.37½. Corn steady with moderate demand at 79c. Oats dull; Western, 49c; Canadian, 51c@52c.

SEEDS—Clover, $4.75. Timothy, $2.25.

PROVISIONS—Steady. Mess Pork, $16@$17; prime, $13. Shoulders, 6½c. Hams, 9¾c; sugar-cured, 10c@10¾c. Lard firm at 11c@12c.

CHICAGO MARKET.—April 21.

FLOUR—Firm but quiet. Sales at $4.50@$5.40 for fair to good extra.

GRAIN—Wheat declining with limited demand; winter red, $1.26@$1.27; spring, 91c@94c. Corn, 70c@72c. Oats inactive; sales at 50c.

SEEDS—Hungarian and Timothy in good request at $1.80@$1.85 for the latter, and $2 for the former.

PROVISIONS—Butter—prime dairy, 13c@23c, scarce and sought after; common dull at 13c@16c. Cheese—supply limited; Western Reserve, 11c@12c; York State, 13c@14c. Eggs, 11c@12c. Potatoes active; choice Meshannocks, 80c@85c; Pinkeyes and Meshannocks mixed, 70c@75c; Merinos, 50c@65c.

WOOL—Market firm. Merino and Saxony, 40c@50c; super, 38c; No. 1, 33c.

CINCINNATI MARKET.—April 20.

FLOUR—Market heavy and prices easier, with the exception of the higher grades, which are well sustained. Superfine, $5.60@$5.70; extra, $5.80@$6.

GRAIN—Demand steady for Wheat; prime white, $1.47@1.50; fair to good do, $1.25@$1.43; red, $1.20@$1.25. Corn—demand light, closing dull at 78@79c. Rye steady at 90c. Barley, 60c@65c. Oats declining; 58c@55c.

SEEDS—Market for Clover very dull and prices declined, closing at $4.50. Flax, $1.50. Timothy dull at $2@$2.25.

PROVISIONS—Market very dull. Mess Pork $16@$17. Bacon 6¼c@8¼c. Lard in demand at 10¾c@11c for country and city; keg lard, 12c. Butter—good demand for fresh at 23c@25c; inferior dull at 9c@10c. Cheese—demand fair; prime new, 9c; and prime old, 9c@10c. Potatoes firm at 65c@75c on arrival, and 80c@90c from store.

TORONTO MARKET.—April 21.

FLOUR—Dull, with no demand for export. Superfine, $6@$6.50; fancy and extra, $6.50@$7. Oatmeal scarce; $7.50@$8.

GRAIN—Prime Wheat, $1.57@$1.60; inferior, $1.30@$1.40; spring wheat for seed active at $1.35@$1.50; Scotch Fife very scarce at $1 60@$1.70. Barley—supply limited; 70c@80c. Rye scarce at 70@80c. Peas active at 80@90c. Oats firm at 57@60c.

SEEDS—Timothy, $1.75@$2.20.

PROVISIONS—Mess Pork, $17@18; prime mess, $14@$15; prime, $12@$13. Smoked Hams, 11½c@12½c; cured, 9c@10c; sides, 8c@9c. Butter scarce; 25c@28c for the best; tub No. 1, 20c; No. 2 dull at 12½c. Cheese, 12c@12½c. Potatoes in better supply; good, 70c@75c; common, 60c@65c. Eggs plentiful at 9c @10c. Poultry, 40c@50c per pair.

CATTLE MARKET—Beef Cattle, $8@$9 per 100 lbs. for the best beasts; ordinary, $7@$7.50. Calves $3 to $5 each. Sheep scarce and dear; $8@$10 for the best; ordinary, $6@$7. Lambs $2@$2.50 each. Sheep skins, $1.50@$1.75 each; Beef hides, $6.50@$7, firm. Calf skins, 10c@12½c per lb.

WOOL—22c@26c per lb.

LONDON MARKET.—April 11.

FLOUR—Market dull. American sour, $4.80@$5.50; sweet, —.

GRAIN—Wheat inactive. American white, $1.26@$1.44; red do., $1.23@$1.38. Indian corn, 87c@90c for both white and yel.

SEEDS—Prices remain as previously quoted, with a less active demand.

PROVISIONS—Hams, 15c@18c. Bacon, 10c@12c. Butter, 24c@30c. Cheese, 12c@17c. Wheaten bread, per 4 lbs. loaf, 12c @14c. Beef, 10c@14c. Mutton, 10c@14. Veal, 12c@13c. Pork, 10c@13c per lb. All by the carcass.

WOOL—English, 28c@48c; German and Saxon, 56c@$1.08; other foreign kinds, 16c@57c for the range.

LIVERPOOL MARKET.—April 8.

FLOUR—Western canal. $5@$5 12; Baltimore, Philadelphia, and Ohio, $5.30@$5.90; sour, $4 80@$4.70.

GRAIN—American white wheat, $1.26@$1.60; red do., $1.14@ $1 40 per bush. of 60 lbs. Indian corn—yellow, 88c@90c; white, $1@$1.04; mixed, 82c@84c per bush. of 60 lbs.

SEEDS—With free supplies, prices are easier. American red clover, 11c@13c per lb.

WOOL—English, 12c@40c per lb.; foreign, good demand for all useful kinds at full London rates.

BRIGHTON CATTLE MARKET.—April 21.

At market, 800 Beeves, 150 Stores, 1200 Sheep and Lambs, 1900 Swine.

PRICES—Market Beef—Extra, $9.75@$0.00; First quality, $8.75; Second, $7.25; Third, $6.00. Milch Cows—$41 @ $42; Common, $20@$21. Veal Calves—$4@$7. Yearlings—none. Two Years old—$22@$26. Three Years old—$26@$33. Hides 7½c@8¼c per lb. Calf Skins—14c@15c per lb. Tallow—7½c@ 8c. Sheep and Lambs—$1.75@$2.75; extra, $4.00@$7.00 Pelts —$1.62@$2.00. Swine—Pigs, 5½c@7c; retail, 6c@8c.

Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 28 to 34 per cent.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty cents a line, or $2 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in *every State and Territory, and in all the British Provinces.* (It has nearly 3000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

PRINCE ALBERT POTATOES FOR SALE—At $3.50 per barrel aboard of cars. Warranted genuine. Address
May—1t* D. NORTON, Jr., Pittstown, Rens. Co., N. Y.

SETS OF THE PRINCE ALBERT POTATO—Sent to any address, by mail, on the receipt of four red stamps.
my 1t* M. L. PARKER, Lyndonville, Orleans Co., N. Y.

JOHN DORR, A torney and Counsellor at Law. Scottsville, Monroe county, N. Y., will give prompt attention to any business in Western New York. ap1t

SEEDLING EVERGREENS.—For sale, 10,000 two-years-old Scotch Pines—fine, strong plants. Price $20 per thousand.
Address C. W. SEELYE,
my1t Rochester Central Nurseries, Rochester, N. Y.

BLOOD STOCK FOR SALE.—One two-year-old Colt by "Mariner," out of "Miss Mattie;" two Alderney Bull Calves, one five the other six months old; two pairs "Shanghai Sheep."
my 3t WILLIAM REDMOND, 48 Barclay St., New York.

12 CTS. PER PACKAGE—postpaid—Boston Marrow Squash, Rhode Island Premium Corn, Mountain Bush Beans, Horticultural Beans, and White Onion Seed. P. SUTTON,
May, 1859.—1t* Ransom, Luzerne Co. Pa.

PEABODY'S EARLY PROLIFIC DENT CORN—five to seven ears on a stalk—15 cts. per ear, or one dollar per quart, at the American Seed Store, Rochester, N. Y.
May, 1859.—1t J. O. BLOSS & CO.

TOP ONIONS! TOP ONIONS! TOP ONIONS!—100 bushels of Top Onions, in fine order, for sale at $2.50 per bushel. Dealers and Gardeners, send in your orders to
my1t J. O. BLOSS & CO., 76 Main St., Rochester, N. Y.

HOLTON'S "SIX WEEKS" POTATOES—Are very great yielders; as early as Junes; indisposed to rot; and a fine, white, table potato, eleven months in the year. A few can be had of CHAS. C. HOLTON or E. D. HALLOCK, Rochester, N. Y.
May, 1859.—1t*

RUSSIA OR BASS MATTS—Selected expressly for budding and tying. GUNNY BAGS, TWINES, &c., suitable for Nursery purposes, for sale in lots to suit, by
D. W. MANWARING, Importer,
August, 1858.—1y* 249 Front Street, New York.

A VIRGINIA FARM FOR SALE.—I offer 1200 acres of rich and highly improved land, with good buildings, an abundance of marl and wood, on Potomac river, Stafford county, Virginia, for only twelve thousand dollars. Address
May—3t G. B. WALLACE, Fredericksburg, Va.

AMERICAN CABBAGE SEED—Of the PREMIUM FLAT DUTCH variety. We can supply Gardeners and the Trade in limited quantities, with the seed of the above finest of all Fall and Winter Cabbages. Warranted to head solid. $3 per pound.
my 2t J. M. THORBURN & CO., 15 John St., New York.

NANSEMOND SWEET POTATO PLANTS—for the North—1,000, $2; 5,000, $10; 10,000, $15. Sent safely by Express. Directions for culture furnished. Our plants have produced good crops at the North, even as far as 44°, during years past.
O. S. MURRAY & SON,
May—1t* Twenty Miles Stand, Warren county, Ohio.

SWEET POTATO PLANTS FOR SALE.—Sweet Potato Plants, Nansemond variety, strong, well-rooted plants, forwarded by Express to any point. Per thousand, $2.50; 500, $1.50; 100, 37½ cts. Plants sent with perfect safety 1000 miles. Plants ready for sending out from the 15th of May onward. Address
May—2t EMORY LUCE, Ashtabula, Ohio.

TRICKS OF HORSE DEALERS!!
BE THE LATE
"FRANK FORRESTER."
Only 10 cents. Illustrated. Sent free by mail. Address
April—2t* DINSMORE & CO., 9 Spruce st., New York.

GRAPES BY MAIL.—Diana, Rebecca, Northern Muscadine Concord, Hartford Prolific, King, Tokalon, Child's Superb, and forty-six other sorts of hardy native grape vines for sale.
Well-rooted plants can be prepared for planting, and sent by mail, carefully packed in oiled silk, and postage paid, on receipt of one dollar each. Delaware and Logan vines at three dollars each. Address C. P. BISSELL & SALTER,
Feb. 1, 1859.—4t. Rochester, N. Y.

TREES AND PLANTS—At the Batavia Nursery, Batavia, Genesee county, N. Y. The subscriber offers for sale a general assortment of Fruit and Ornamental Trees, Grapes, Currants, Gooseberries, Raspberries, Strawberries, Shrubs, Roses, Pæonias, Dahlias, Greenhouse and Bedding Plants, &c., at very reasonable prices. Descriptive Catalogues furnished on application. ap2t A. LOOMIS, Batavia, Genesee county, N. Y.

BEDDING PLANTS, DAHLIAS, &C.
Rochester Central Nurseries.

THE Subscriber would call attention to his fine collection of Bedding Plants, offered for sale this spring, embracing a great variety of Verbenas, Petunias, Heliotropes, Salvias, Scarlet Geraniums, &c., &c., of the best and newest sorts.

Also, a large variety of the finest Dahlias in cultivation.

PHYSALIS CAPENSIS—A limited number of this new and beautiful plant will be ready for delivery after the 1st of May.

Packing is done in the best and securest manner, and parties ordering plants can rely upon receiving them in good order.

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Mr. Copeland is well known in his profession; he has made it the enthusiastic study of his life; and probably there is not a man living in this country who is better qualified than he for so great an undertaking. And that he has acquitted himself nobly in this great work which he now offers to the public, we have the testimony of several of our most distinguished Agriculturists, who have examined his proof sheets.

The work will be published about the 20th of May, in one *superb* 8vo. *vol. of 800 pages, with 225 elegant illustrations*—PRICE THREE DOLLARS.

In order, however, to place so valuable a work (which, in the language of a gentleman of high culture and extensive experience, who has read all the proof sheets, "*contains more and better information than any six books on those subjects.*") within the reach of all, we shall issue an edition on smaller paper and sell for TWO DOLLARS, depending on large sales to compensate us for the large outlay.

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THE

Rural Annual and Horticultural Directory

FOR 1859.

THIS work was started in 1856, by the publisher of the *Genesee Farmer*. Its great success affords conclusive evidence, not only of its intrinsic merit, but of its adaptability to the wants of the rural population. A new volume, prepared with great care and replete with new and valuable matter, is issued each year. The fourth volume, for 1859, has appeared, and is a book which cannot be too highly recommended—alike beautiful, interesting, and useful. The articles are all written for its pages by men of experience. It is illustrated with seventy-five appropriate and beautiful engravings.

Among its contents may be mentioned able treatises on Underdraining Orchards and Gardens, on the Fruits of the Ohio Valley, on Fruit Culture in the West, on the Cultivation of Fruit Trees in Pots under Glass, on Training Wall and Espalier Trees, on the Cultivation of Bulbous Plants, on the Management of Ducks, Geese, and Swans, on British Breeds of Cattle, on the Cultivation of Ruta Bagas, &c., &c., and a List of Fruits recommended by the American Pomological Society at its last session.

The work will be found invaluable to the Fruit Grower, and useful to every one interested in Rural affairs.

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Publisher and Proprietor

Of the Genesee Farmer and Rural Annual,

Rochester, N. Y.

The back numbers, for 1856, 1857, and 1858, can be furnished at twenty-five cents each, postage paid.

PROFITABLE EMPLOYMENT.—PLEASE TO READ THIS!—Agents Wanted!—Extra inducements for 1859!—All persons IN WANT OF EMPLOYMENT will at once receive our Catalogue of Books for the New Year, prepaid, by forwarding us their address. Particular attention is requested to the liberal offers we make to all persons engaging in the sale of our Large-Type Quarto PICTORIAL FAMILY BIBLE, with about One Thousand Engravings. On receipt of the established price, Six Dollars, the Pictorial Family Bible, with a well-bound Subscription Book, will be carefully boxed, and forwarded by express, at our risk and expense, to any central town or village in the United States, excepting those of California, Oregon, and Texas. Our books are sold by canvassers, and are well known to be the most saleable. Address, postpaid, ROBERT SEARS, Publisher,

May—1t No. 181 William street, New York.

TO FARMERS AND LUMBER DEALERS.—Scribner's Ready Reckoner and Log Book is one of the most complete and reliable books for measuring all kinds of saw logs, boards, plank and lumber of all kinds, that can be found. Its sale has been constantly increasing ever since its publication, until over 200,000 copies have been sold.

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Agents and pedlers can make money by selling the book.

Address, GEO. W. FISHER,

ap2t Bookseller and Stationer, Rochester, N. Y.

SORGHUM SUGAR-CANE.—Our Annual Illustrated Pamphlet, now in press, and to issue about the 15th of April, contains a plain and comprehensive Treatise, explaining how to make Sugar and Syrup from the Sorghum Cane: together with Reports of Interesting Experiments made throughout the country during the last two seasons. It also contains a Catalogue, with cuts and descriptions, of our Improved Patent Sugar-Cane Mills, Pans, Clarifiers, Furnace Fixtures, Skimmers, Ladles, Thermometers, Pots, Saccharrometers, Retorts, Molds, and all the appurtenances requisite in the Sugar-making process. On receipt of three postage stamps, this will be mailed prepaid to any address.

1t HEDGES, FREE, & CO., No. 6 Main St., Cincinnati, O.

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May, 1859.—6t C. & W. McCAMMON, Albany, N. Y.

KETCHUM'S COMBINED HARVESTER.

KETCHUM'S Improved Combined Machine, "Iron Frame," with Reel and adjustable Roller. Cut 4 feet 10 inches..... $180
KETCHUM'S Improved Two Horse Mower, "Iron Frame," with the adjustable Roller to Cutter Bar,.... $110
KETCHUM'S Improved One Horse Mower, Iron Frame,.. $ 75
SANFORD'S Portable Farm Mill for Grinding Feed for Stock, Plaster or Bones for Manure,..... $ 30
SANFORD'S Portable Plantation, or Hand Hominy Mill,. $ 20

Machines and Mills shipped without extra charge.

These Machines are simple in construction, have no equal for durability and light draft, are entirely free from all side draft, and have no weight upon the horse's neck.

This Machine, as improved for 1859, was awarded the first premium by the Michigan State Agricultural Society, at its annual Fair in September last, as a Reaper and as a Mower.

The New York State Agricultural Society, at its late Fair, awarded it the first premium as a Combined Grain and Grass Harvester.

Ohio, also, awarded it its best commendation.

Two Horse Machine warranted to cut from 10 to 15 acres of grass or grain per day.

One Horse Machine warranted to cut from 5 to 8 acres of grass per day.

All orders will receive prompt attention.

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Manufacturer and Proprietor, Buffalo, N. Y.

I have for sale pure Hungarian Grass Seed. Price three dollars per bushel.

Emery's One and Two Horse Railroad Powers for sale at manufacturer's prices, adding transportation from Albany.

May, 1859.—3t R. L. HOWARD.

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NEW SCALE PIANO FORTES!

Perfect in musical qualities and mechanism, and having our New Patent Improvements of the

Insulated Iron Rims, Corrugated Sounding Board, &c.,

Making them the most perfect and desirable PIANOS made in the world.

All sizes, from 6 to 7⅓ octaves; and all prices, from $125 to $800, according to size and finish. Will be sold at very LOW PRICES FOR CASH, and perfect satisfaction guaranteed.

Please call and examine them at our MUSIC HALL, Nos. 408 and 470 Broadway, Albany, N. Y.

Illustrated Price Lists and Circulars furnished on application.

May—1t BOARDMAN, GRAY, & CO., Albany, N. Y.

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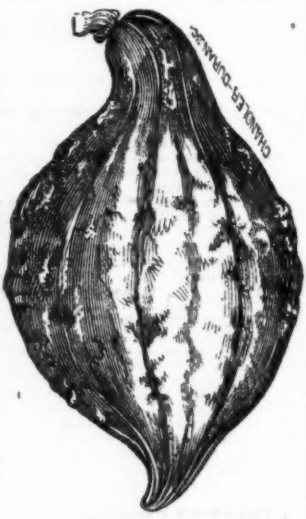
HUBBARD SQUASH.

Seed for sale by the subscriber, who first introduced this new variety to public notice, and gave it its name. It is pronounced, by Hon. Marshall P. Wilder and Hon. Edward Everett, to be the richest squash they have ever tasted; and by the New England Farmer, Boston Cultivator, the Homestead, and the entire agricultural press of the North, to be the driest, sweetest, and richest-flavored of all squashes.

For a single package of seed, with directions for cultivating, 25 cents.

Dealers wishing to sell on commission promptly supplied with packages, circulars, &c., on application to the subscriber.

May, 1859.—1t



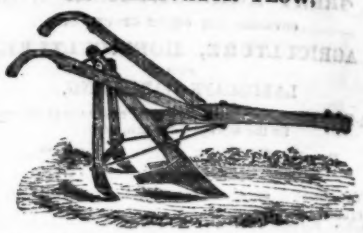
JAMES J. H. GREGORY,
Marblehead, Massachusetts.

PERUVIAN GUANO.—No. 1 Peruvian Guano, Government brand and weight, direct from Peruvian agents, in quantities to suit purchasers, at the lowest market price.

March, 1859.—3t A. LONGETT, 84 Cliff St., New York.

ROCHESTER AGRICULTURAL WORKS.

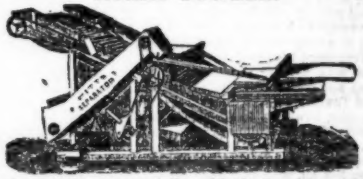
HYDE & WRIGHT'S PATENT HORSE-HOE OR CULTIVATOR PLOW,



Designed, and better adapted than any other implement, for hoeing Corn, Broom Corn, Potatoes, Cotton, or any other crop requiring the use of the Horse or Hand-Hoe. It has proved itself the most valuable implement yet invented for the purpose intended. It has been in use in Western New York for the past six years. Its great utility has been demonstrated in the fact that one day to the acre, with a man and horse, is all the expense of cultivating and hoeing a field of corn for the season. If used as directed, hand-hoeing, in nine cases out of ten, may be entirely dispensed with. We have numerous certificates of the most satisfactory character, which we would be happy to show the public.

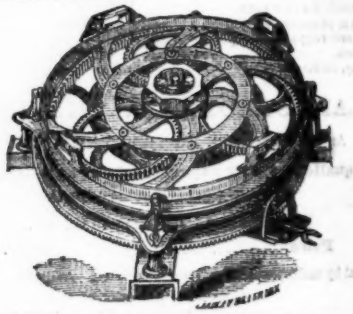
Price, $8; if ground and polished, $8.50. No farmer should be without one. They are having an unlimited sale. Sold at wholesale and retail.

IMPROVED THRESHING MACHINES AND HORSE POWERS.



The above cut is a representation of the justly celebrated PITTS MACHINE FOR THRESHING AND CLEANING GRAIN at one operation. It is the best Machine in existence.

The following cut represents an improved, all iron, EIGHT OR TEN HORSE POWER.



As a superior and every way reliable Horse Power, the above stands unrivalled.

We call attention to the fact that we are now manufacturing the above Machines, at Rochester, N. Y., in a more substantial and durable manner than any hitherto built in this city, having all the latest improvements.

We also make Pitts' celebrated DOUBLE PINION EIGHT OR TEN HORSE POWERS.

ONE HORSE MOWER.

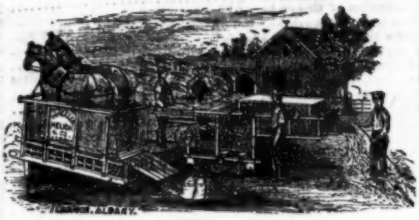
We offer Stoddard's Mower to the Farmer as preferable to every other Mower. It will cut salt, tame, or prairie grass; will do its work well; does not clog; *will cut as much per hour, with one horse*, as any other Mower *with two horses*. Its draft in cutting is only from 80 to 110 lbs. Cuts 4 ft. 2 inches. Price, $100.

ROCHESTER CUTTING BOX.

All who are in want of a Feed Cutter, adapted equally well to the cutting of all kinds of fodder, will find our Cutting Box in all respects to answer their wants. A. GORDON.

May, 1859.—1t 68 South St. Paul street, Rochester, N.Y.

AGRICULTURAL IMPLEMENTS.



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PROPRIETORS

New York State Agricultural Works,

Manufacturers of Endless Chain Railway Horse Powers, and Farmers' and Planters' Machinery for Horse Power use, and Owners of the Patents on, and principal Makers of, the following valuable Machines.

WHEELER'S PATENT DOUBLE HORSE POWER AND Improved Combined Thresher and Winnower.

(Shown in the Cut.)

Our first Combined Thresher and Winnower was invented and made in 1851. Continued experiments resulted, in 1857, in the present

WHEELER'S IMPROVED PATENT COMBINED THRESHER AND WINNOWER.

This Machine is a model of simplicity and compactness, and is made in the most substantial manner, so that its durability equals its efficiency and perfection of work. Its capacity, under ordinary circumstances, has been from 125 to 175 bushels of wheat, and from 200 to 300 bushels of oats, per day. It works all other kinds of grain equally well, and also threshes and cleans rice and timothy seed. Price $245.

WHEELER'S PATENT SINGLE HORSE POWER AND Overshot Thresher with Vibrating Separator.

This is a One-Horse Machine, adapted to the wants of medium and small grain-growers. It separates grain and chaff from the straw, and threshes from 75 to 100 bushels of wheat, or twice as many oats, per day, without changing horses—by a change, nearly double the quantity may be threshed. Price $128.

WHEELER'S PATENT DOUBLE HORSE POWER AND Overshot Thresher with Vibrating Separator.

This Machine is like the preceding, but larger, and for two horses. It does double the work of the single machine, and is adapted to the wants of large and medium grain-growers, and persons who make a business of threshing. Price $160.

Also, Circular and Cross-Cut Sawing Machines, Clover Hullers, Feed Cutters, Mowers and Reapers, Horse Rakes, and other Farming Machines.

Our Horse Powers are adapted in all respects to driving every kind of Agricultural and other Machines that admit of being driven by Horse Power, and our Threshers may be driven by any of the ordinary kinds of Horse Powers in use. Either is sold separately.

☞ To persons wishing more information, and applying by mail, we will forward a Circular containing such details as purchasers mostly want—and can refer to gentlemen having our Machines, in every State and Territory.

Our firm have been engaged in manufacturing this class of Agricultural Machinery 24 years, and have had longer, larger, and more extended and successful experience than any other house.

All our Machines are warranted to give entire satisfaction, or may be returned at the expiration of a reasonable time for trial.

☞ Orders from any part of the United States and Territories, or Canada, accompanied with satisfactory references, will be filled with promptness and fidelity; and Machines, securely packed, will be forwarded according to instructions, or by cheapest and best routes. WHEELER, MELICK, & CO.,

May, 1859.—1t Albany, N. Y.

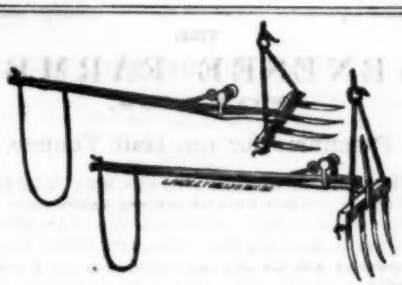
AGRICULTURAL IMPLEMENTS—A large assortment, at manufacturer's prices, consisting of Endless Chain Horse-Powers and Threshers, Excelsior Fan Mill, Hay and Straw Cutters, Churns, Corn Shellers, Seed Sowers, Harrows, Cultivators, Road Scrapers, Iron and Wood Beam Plows, &c., &c.

Send for a catalogue. A. LONGETT,

March, 1859.—3t 34 Cliff street, New York.

NOTICE.—Virginia Farms for sale. Apply to

ap3t* CORNELIUS GUARD, Dowdalls Office, Va.



GLADDING'S HAY ELEVATOR.

Patented May 11, 1858.

THIS Horse Pitch Fork possesses many important advantages over all other Forks, among which are the following: The tines being allowed to drop to discharge its load, the tilting of the handle, as in other Forks, is avoided; hence, hay can be unloaded with the utmost facility and ease into shed windows or beneath purline beams, and other places where other Horse Forks can not be used. It can in all cases be managed with greater ease than any other Horse Fork. It is equally adapted to stacking. With this Fork, a ton of hay can be unloaded in from five to seven minutes. Price $12, everything included.

TESTIMONIALS.

I hereby certify that I have witnessed the operation of C. E. Gladding's Patent Horse Pitch Fork, and am free to say that I esteem it a great acquisition to the agricultural department. Its simplicity, durability, perfect operation, and comparatively trifling expense, recommends it to the farmers of our country.

HORNBY, N. Y., Aug. 31, 1858. A. B. DICKINSON.

Having been acquainted with Horse Power Pitchforks for several years, and having witnessed the operation of Mr. Gladding's Patent Improvement of the same, I cheerfully recommend it to the farming community as decidedly the best that I am acquainted with. A. E. KAPP.

NORTHUMBERLAND, PA., Oct. 1, 1858.

We hereby testify that we have for some years been using the common Horse Power Pitchfork, and have seen C. E. Gladding's Patent Improvement, and do most cheerfully recommend it in every respect a decided advantage. SAMUEL LEVERICH,

February 15, 1859. B. S. CARPENTER.

The above testimonials are selected from many others, the signers being generally known as distinguished agriculturists. All who have seen it operate, agree in the above opinion of its merits.

This Fork has taken the First Premium at every Fair at which it has been exhibited, including the State Fairs of Pennsylvania and New York for 1858.

State and County Rights for Sale.

Address [*] C. E. GLADDING, Troy, Bradford Co., Pa.

BURRALL'S CORN SHELLER

HAS long been extensively known and approved as the best hand sheller in use. It is the *only one* that shells clean and SEPARATES *the corn from the cob at the same operation.* It is simple, strong, and durable, being all of iron. Price $12. Liberal discount to dealers. All orders or *inquiries* will receive prompt attention from

BURRALL, SNYDER, & CO.,
(successors to Thomas D. Burrall,)
Manufacturers of Shellers, Mowers, Reapers, Clod-Crushers, and various other Farm Implements, Geneva, Ontario county, N. Y. ap2t

SHORT HORN HERD AT AUCTION.—Having sold my farm at Chestnut Ridge, Dutchess county, N. Y., I will offer for sale at auction, my entire Herd of SHORT HORNED CATTLE, consisting of about thirty-five head of superior animals. Among them will be the unrivalled Bull, "Highflyer," 578; also, stock sired by him, as well as the "Earl of Warwick," 465. The sale will take place at Dover Plains, on the New York and Harlem Railroad, on the 10th day of May next, at 12 o'clock.

Catalogues of Pedigrees may be had after the 10th day of March, at the offices of the American Agriculturist, New York, Country Gentleman, Albany, Ohio Farmer, Cleveland, Boston Cultivator, and of the subscriber. SAMUEL T. TABER.

Mineola, Queens Co., N. Y. ap 2t

P. S. No animals will be disposed of before the sale at auction.

SUPERPHOSPHATE OF LIME—BONE DUST—For sale by mr 3t A. LONGETT, 34 Cliff street, New York.

THE

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FOR 1859.

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THERE are many farmers in every town in the United States and Canada, who are not now taking any agricultural paper. In order to reach this large class, we have concluded to take subscriptions for the coming half volume of the *Genesee Farmer*, commencing with the July and ending with the December number.

Terms.—We will send the *Genesee Farmer* for the coming half year—July to December inclusive—single subscribers, 25 cents; five copies for $1, and a copy of our beautiful 25-cent book the *Rural Annual and Horticultural Directory*, prepaid by mail, to the person getting up the club; eight copies for $1.50, and a *Rural Annual*, prepaid by mail, to the person getting up the club; sixteen copies for $3, and a *Rural Annual* and an *extra copy of the Farmer* for a year, or two for the half volume, to the person getting up the club.

CASH PREMIUMS

For the Greatest Number of Subscribers.

We also offer the following Cash Premiums for the greatest number of subscribers for the coming half volume, sent in by the 15th day of October:

1. TWENTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers, (at the lowest club price of 18¾ cents each,) before the 15th day of October, 1859. (The order with the money must be *received*, not mailed, on or before the 15th of October.)

2. FIFTEEN DOLLARS to the person who shall send us the second highest list, as above.

3. TEN DOLLARS to the person who shall send us the third highest list, as above.

4. NINE DOLLARS to the person who shall send us the fourth highest list, as above.

5. EIGHT DOLLARS to the person who shall send us the fifth highest list, as above.

6. SEVEN DOLLARS to the person who shall send us the sixth highest list, as above.

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8. FIVE DOLLARS to the person who shall send us the eighth highest list, as above.

9. FOUR DOLLARS to the person who shall send us the ninth highest list, as above.

10. THREE DOLLARS to the person who shall send us the tenth highest list, as above.

11. TWO DOLLARS to the person who shall send us the eleventh highest list, as above.

12. ONE DOLLAR to the person who shall send us the twelfth highest list, as above.

The club need not be all at one post office. We will write the names of the subscribers on every paper, and send them to as many different post offices as is desired.

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We cordially invite Postmasters and all friends of agricultural improvement to act as agents for the *Genesee Farmer*. We will cheerfully send them specimen copies, show-bills, &c., if desired.

Money may be sent at our risk.

Address **JOSEPH HARRIS,**
PUBLISHER AND PROPRIETOR,
May 1, 1859. ROCHESTER, N. Y.

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THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

IS PUBLISHED AT ROCHESTER, N. Y.,

By JOSEPH HARRIS.

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

Terms—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR; Five Copies for $2; Eight Copies for $3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club desire.

☞ All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent *free* to all applicants.

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Subscription money may be sent at the risk of the Publisher.

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Publisher and Proprietor, Rochester, N. Y.

POSTAGE.—The postage on the FARMER, sent to any place in the State of New York, paid quarterly in advance, is three cents a year; to any other place in the United States, six cents a year. We pay the American postage on all papers sent to the Canadas or any of the other British Provinces.

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